KANSAS CITY KANSAS PUBLIC SCHOOLS

7th grade
Continuous Learning Packet
April and May 2020

For students who do not have a computer or reliable internet access, learning packets will be distributed the week of April 6th. Please know that these packets are intended to provide support for continuous learning as we are away from our schools during this time. Learning is retained when we consistently practice. Please pace out the amount of work your child completes daily. We hope you enjoy "practicing" while you are home. Thank you for being partners in this work – we appreciate your dedication to helping our students succeed.

English Language Arts/Literacy

Grade: 7

April 6-17, 2020

Passage 1: What is a Pandemic?

I. BEFORE READING (PREVIEW):

1) Scan all of the **text features** of the passage on pages 3-4 (below)
(Do not read the text yet, just read and look at the **text features**.)

What are text features? Titles, subtitles, pictures, graphs, bold-faced words, anything the author does to help you understand the text.

2) Based on the text features, what is the **topic**?

_____

3) Brainstorm what you know (your **schema**) about this **topic**.
(What have you watched, read, experienced, heard, about this topic in the past?)

4) Write a prediction about the author's message in this text using all of the words below. If a word is unfamiliar try https://www.wordsmyth.net/ for definition, synonyms, images, and sentences using the word.

epidemic, pandemic, virus, outbreak, immunity, mortality, originated

You can add endings to words as needed.

5) **Your purpose question is:** ***What impact does disease have on societies?***
(As you read, your purpose will be to identify evidence to answer this question.)

II. NOW IT'S TIME TO READ:

READ & ANNOTATE on the text below using the following key. ***Use all of the annotation marks*** *at least once and explain your thinking about each annotation mark in the margin.*

ANNOTATION KEY:

?	Words, phrases, and sentences that cause confusion. **Write a question about your confusion in the margin.**
○	Important, unfamiliar words (circle)
!	Main/central ideas (What is important to the author's message?)
#	Connections to prior experiences or learning. **Write about your connection in the margin.**

What is a Pandemic?

Kimberly Hickock, March 13,2020

https://www.livescience.com/pandemic.html

An influenza ward at a U.S. Army Camp Hospital in France during the Spanish flu pandemic of 1918.

(Image: © Shutterstock)

A pandemic is the global outbreak of a disease. There are many examples in history, the most recent being the COVID-19 **pandemic**, declared as such by the World Health Organization on March 12, 2020. Pandemics are generally classified as **epidemics** first, which is the rapid spread of a disease across a particular region or regions. The Zika **virus outbreak** that began in Brazil in 2014 and made its way across

the Caribbean and Latin America was an epidemic, as was the Ebola outbreak in West Africa in 2014-2016. The U.S. has been experiencing an opioid epidemic since 2017 because of the widespread misuse and high numbers of deaths caused by the drug, according to the U.S. Department of Health and Human Services.

COVID-19 began as an epidemic in China, before making its way around the world in a matter of months and becoming a pandemic. But epidemics don't always become pandemics, and it's not always a fast or clear transition. For example, HIV was considered an epidemic in West Africa for decades before becoming a pandemic in the late 20th century. Now, thanks to advances in modern medicine, HIV is considered endemic, which means the rate of the disease is stable and predictable among certain populations, according to the American Medical Association.

Modern flu pandemics

Most virus pandemics have been caused by influenza (flu) viruses. Flu viruses can change from season to season and while health professionals are pretty good at predicting how the virus will change, occasionally a new virus pops up that doesn't behave as predicted. That's when a pandemic is most likely to occur because most people don't have **immunity** to the new virus.

The most deadly pandemic in history was the Spanish flu of 1918. The virus infected an estimated one-third of the world's population and was responsible for causing between 20 million and 50 million deaths — that's an estimated 1% to 3% **mortality** rate. The virus didn't **originate** in Spain, but the country was the first to report on the outbreak, so people began calling it the Spanish flu (the Spanish thought it started in France and called it the "French flu").

III. AFTER READING (RECALL):

SUMMARIZE: Now that you have read and annotated this article, summarize the author's position/message using the following vocabulary:

epidemic, pandemic, virus, outbreak, immunity, mortality, originated

You can add endings to words as needed.

RELATE: What connections can you make to what you see and know about the world right now? What thoughts or opinions do you have about this topic?

REFLECT on the PURPOSE QUESTION:

Based on your reading so far, **how do you think** a pandemic could affect a society? Use one pandemic example from the text, and **explain how you think** it affected people in a society.

Passage 2: How the Devastating Flu of 1918 helped Advance US Women's Rights

I. BEFORE READING (PREVIEW):

1) Scan all of the **text features** of the passage on pages 7-8 (below)
   (Do not read the text yet, just read and look at the **text features**.)
2) Based on the text features, what is the **topic**?

   _____

3) Brainstorm what you know (your **schema**) about this **topic**.
   (What have you watched, read, experienced, hear, about this topic in the past?)

4) Write a prediction about the author's message in this text using all of the words below. If a word is unfamiliar try https://www.wordsmyth.net/ for definition, synonyms, images, and sentences using the word.

social change, epidemic, suffrage, epidemic, empower, women, right to vote, discrimination

You can add endings to words as needed.

5) **Your purpose question is:** ***What impact does disease have on societies?***
   (As you read, your purpose will be to identify evidence to answer this question.)

II. NOW IT'S TIME TO READ:

READ & ANNOTATE on the text below using the following key. ***Use all of the annotation marks*** *at least once and explain your thinking about each annotation mark in the margin.*

ANNOTATION KEY:

?	Words, phrases, and sentences that cause confusion. **Write a question about your confusion in the margin.**
○	Important, unfamiliar words
!	Main/central ideas (What is important to the author's message?)
#	Connections to prior experiences or learning. **Write about your connection in the margin.**

The Conversation, **March 1, 2018**

Introduction: One hundred years ago, a powerful strain of the flu swept the globe, infecting one third of the world's population. The aftermath of this disaster, too, led to unexpected **social changes**, opening up new opportunities for women and in the process irreversibly transforming life in the United States.

The virus disproportionately affected young men, which in combination with World War I, created a shortage of labor. This gap enabled women to play a new and indispensable role in the workforce during the crucial period just before the ratification of the 19th Amendment, which granted women **suffrage** in the United States two years later.

Flu brought more women into the workforce

The severity of the **epidemic** in the U.S. was enough to temporarily shut down parts of the economy in 1918. In New England, coal deliveries were so severely affected that

people, unable to keep their homes heated, froze to death at the height of winter. During the 1918 flu outbreak, researchers estimate businesses in Little Rock, Arkansas, saw a decline of 40 to 70 percent.

The worker shortage caused by the flu and World War I opened access to the labor market for women, and in higher numbers than ever before they took jobs outside the home. Following the conclusion of the war, the number of women in the workforce was 25 percent higher than it had been previously and by 1920 women made up 21 percent of all gainfully employed individuals in the country. While this increase in women at work is believed to be caused by World War I alone, women's increased presence in the workforce would have been far less significant without the 1918 flu.

Women began to move into employment roles that were previously held exclusively by men, many of which were in manufacturing. They were even able to enter fields from which they had been banned, such as the textile industry. As women filled what had been typically male workplace roles, they also began to demand equal pay for their work. Gaining greater economic power, women began more actively advocating for various women's rights issues – including, but not limited to, the right to vote.

How the flu helped change people's minds

Increased participation in the workforce allowed many women to obtain social and financial independence. Leadership positions within the **workforce** could now be occupied by women, especially in the garment industry, but also in the military and police forces. The U.S. even got its first woman governor, when Nellie Taylor Ross took her oath of office, in 1923, in Wyoming. An increased ability to make decisions in their personal and professional lives **empowered** many women and started to elevate their standing.

With the war over and increased female participation in the labor force, politicians could not ignore the critical role that women played in American society. Even President Woodrow Wilson began to argue in 1918 that women were part of the American war effort and economy more broadly, and as such, should be afforded the **right to vote**.

Outside of work, women also became more involved in community decision-making. Women's changing social role increased support for women's rights. In 1919, the National Federation of Business and Professional Women's Clubs was founded. The organization focused on eliminating sex **discrimination** in the workforce, making sure women got equal pay and creating a comprehensive equal rights amendment.

The 1918 influenza pandemic was devastating. But the massive human tragedy had one silver lining: It helped elevate women in American society socially and financially, providing them more freedom, independence and a louder voice in the political arena.

III. AFTER READING (RECALL):

SUMMARIZE: Now that you have read and annotated this article, summarize the author's position/message using the following vocabulary:

social change, epidemic, suffrage, epidemic, empower, women, right to vote, discrimination

You can add endings to words as needed.

RELATE: What connections can you make to what you see and know about the world right now? What thoughts or opinions do you have about this topic?

REFLECT on the PURPOSE QUESTION:

Based on your reading so far, what were the ways the flu pandemic of 1918 impacted the lives of women in American society? Cite evidence from the text to explain your answer.

Passage 3: Three Ways the Coronavirus is Changing Society & Human Interaction

I. BEFORE READING (PREVIEW):

1) Scan all of the **text features** of the passage on pages 12-13 (below)
   (Do not read the text yet, just read and look at the **text features**.)
2) Based on the text features, what is the **topic**?

   _____

3) Brainstorm what you know (your **schema**) about this **topic**.
   (What have you watched, read, experienced, heard, about this topic in the past?)

4) Write a prediction about the author's message in this text using all of the words below. If a word is unfamiliar try https://www.wordsmyth.net/ for definition, synonyms, images, and sentences using the word.

pandemic, fragility, denial, social relations, nationalism, dependence, common good

You can add endings to words as needed.

5) **Your purpose question is:** ***What impact does disease have on societies?***
   (As you read, your purpose will be to identify evidence to answer this question.)

II. NOW IT'S TIME TO READ:

READ & ANNOTATE on the text below using the following key. ***Use all of the annotation marks*** *at least once and explain your thinking about each annotation mark in the margin.*

ANNOTATION KEY:

?	Words, phrases, and sentences that cause confusion. **Write a question about your confusion in the margin.**
○	Important, unfamiliar words (circle)
!	Main/central ideas (What is important to the author's message?)
#	Connections to prior experiences or learning. **Write about your connection in the margin.**

Three Ways the Coronavirus Pandemic is Changing Society and Human Interaction...

https://www.buisnessinsider.com

For most Americans, the coronavirus **pandemic** represents a completely new circumstance, as original as it is life-changing. No event in recent history has affected us as deeply.

Not only does it remind us of our physical **fragility**, it undermines economic security, throws daily routines topsy-turvy, ruins plans, and isolates us from friends and neighbors.

I am a psychologist who studies human motivation and its impact on what we feel, how we think, and what we do. I see that little by little, the stressful external forces this pandemic unleashed are exerting a deep internal effect. Little by little, they are changing who we are, and how we relate to people and the world.

The pandemic affects our psyches three ways: It influences how we think, how we relate to others, and what we value.

This **crisis** has induced wide reaching uncertainty. We do not know what to think, or how to make heads or tails of these completely unfamiliar circumstances. Who will be affected? Will our loved ones? How quickly? Will tests be available? Will we survive? How long will this last? What about our work? Our income?

The combination of uncertainty and danger is a recipe for severe stress. It feeds an intense desire for certainty, better known to psychologists as the need for cognitive closure.

Research on the need for closure tells us much more: Under conditions of uncertainty, people are drawn, as if by a magnet, to simple solutions and black-and-white reasoning. Some gravitate to the pole of **denial** that nothing is wrong at all, others to that of utter panic, the belief that the worst is sure to come, and that the end is near. Rumors are circulated widely and seized upon uncritically.

When their need for closure rises, people become "group-centric," which means they yearn for connection and unity. Patriotism is elevated but so, often, is **nationalism**, the idea that our nation is superior to others, better at handling the crisis that foreigners have propagated to begin with.

The coronavirus pandemic is scary. Everyone can be infected. No one is exempt. No matter what your station in life, your status, power or popularity, the virus still can get you. This possibility evokes an overriding sense of fragility and vulnerability. Ample research attests that with one's feelings of control and personal agency at an ebb — such as in infancy, in sickness or old age — one's **dependence** on others rises.

This prompts putting **social relations** at a premium, strengthening one's attachment to others, boosting the appreciation of one's loved ones, family, and friends.

One consequence of our helplessness in a pandemic is our greater sociability, a yearning for warmth and help, the realization that we need others, that we cannot hack it alone.

Along with the growing attachment to others comes a subtle shift in our morals. Communal values of cooperation, consideration, and caring are prioritized, whereas individualistic ones of prestige, popularity, and power lose some of their cachet.

Our cultural ideals shift accordingly. In times of crisis, we celebrate and accord major significance to persons who serve communitarian values, extend a helping hand to others, sacrifice their self-interests for the **common good**, exhibit empathy, and model humanity. Fascination with fame and riches is diminished; it takes a back seat to admiration for simple acts of kindness.

The coronavirus pandemic alters who we are, affecting diverse facets of our psyche.

We may approve of some of the changes — toward stronger communal bonds and **humanitarian** values — and disapprove of others — closed-mindedness, black-and-white thinking. Whether we like it or not, the immense crisis we are facing brings out the best in us, but also the worst in us

III. AFTER READING (RECALL):

SUMMARIZE: Now that you have read and annotated this article, summarize the author's position/message using the following vocabulary:

pandemic, fragility, denial, social relations, nationalism, dependence, common good

You can add endings to words as needed.

RELATE: What connections can you make to what you see and know about the world right now? What thoughts or opinions do you have about this topic?

REFLECT on the PURPOSE QUESTION:

Based on this passage, what were the ways Coronovirus (Covid-19) pandemic is changing our society? Cite evidence from the text to explain your answer.

RAFT WRITING RESPONSE

Directions:

1. Decide which RAFT exercise you want to do. Always read across the chart.
2. Look at the 1st column of ROLES. A role is the person you are pretending to be. This is the voice you will write from. Select a role that interests you.
3. Who is the AUDIENCE you will be writing to? You must write to the AUDIENCE that matches the ROLE you chose.
4. Look at the 3rd column that goes with your ROLE. THe FORMAT is the way you will write to your AUDIENCE.
5. What will you write about? What will a writer in the ROLE you chose, know about the topic in the 4th column? You will use evidence from the 3 texts you read to write about this TOPIC.
5. You have 4 options; choose 1 to guide your writing. Write 3 -5 paragraphs based on the row you choose from the chart below.

ROLE (you)	AUDIENCE	FORMAT	TOPIC
History teacher	Students	Lecture for a class	What have we learned about society from past pandemics?
Sick person in a hospital	Family members	Journal	What is it like to have this virus and how has it changed you?
Parent in the US	Other parents in other countries	Facebook	What is it like to help children in virtual school during a pandemic?
Student learning from home	Children in the future	Short story	What is it like to be in virtual school during a pandemic?

English Language Arts/Literacy

Grade: 7

April 17 - May 1, 2020

Passage 1: What is Climate and Climate Change?

I. BEFORE READING (PREVIEW):

1) Scan all of the **text features** of the passage on pages 18-20 (below)
(Do not read the text yet, just read and look at the **text features**.)

What are text features? Titles, subtitles, pictures, graphs, bold-faced words, anything the author does to help you understand the text.

2) Based on the text features, what is the **topic**?

_____

3) Brainstorm what you know (your **schema**) about this **topic**.
(What have you watched, read, experienced, heard, about this topic in the past?)

4) Write a prediction about the author's message in this text using all of the words below. If a word is unfamiliar try https://www.wordsmyth.net/ for definition, synonyms, images, and sentences using the word.

Climate, climate change, greenhouse gas, weather, efficiently, global warming, energy, water

You can add endings to words as needed.

5) **Your purpose question is:** ***How does climate change impact me?***
(As you read, your purpose will be to identify evidence to answer this question.)

II. NOW IT'S TIME TO READ:

READ & ANNOTATE on the text below using the following key. ***Use all of the annotation marks*** *at least once and explain your thinking about each annotation mark in the margin.*

ANNOTATION KEY:

?	Words, phrases, and sentences that cause confusion. **Write a question about your confusion in the margin.**
○	Important, unfamiliar words (circle)
!	Main/central ideas (What is important to the author's message?)
#	Connections to prior experiences or learning. **Write about your connection in the margin.**

What is Climate and Climate Change?

https://newsela.com/read/lib-nasa-climate-and-climate-change/id/24135/

The **climate** of a region or city is its average weather. For example, the climate of Hawaii is sunny and warm. But the climate of Antarctica is freezing cold. Earth's climate is the average of all the world's regional climates.

So **climate change** is a change in the average weather of a region or city. This could be a change in a region's average yearly rainfall, for example. Or it could be a change in a city's average temperature for a given month or season.

Climate change is also a change in Earth's overall climate. This could be a change in Earth's average temperature. Or it could be a change in Earth's overall rain or snow.

What Is The Difference Between Weather And Climate?
Weather is the short-term changes we see in temperature, clouds, rain or snow, wetness in the air and wind. Weather can change a lot from one day to the next, or even within the same day. In the morning, the weather may be cloudy and cool. But by afternoon, it may be sunny and warm.

The climate of an area is its weather averaged over many years. This is usually different for different seasons. For example, a region or city may tend to be warm during summer and cold during winter.

The climate changes slowly. It can take as long as thousands of years for these changes to happen.

Is Earth's Climate Changing?
Earth's climate is always changing. In the past, Earth's climate has gone through warmer and cooler periods. Each period lasts thousands of years.

Studies show that Earth's climate has been getting warmer. Its average temperature has risen a little more than 1 degree Fahrenheit during the past 100 years or so. This amount may not seem like much. But small temperature changes can lead to big effects.

What Is Causing Earth's Climate To Change?
Some causes of climate change are natural. Ocean changes and volcanic eruptions are two examples of natural causes of climate change.

But most scientists think that the warming can't be explained by nature alone. They think most of the warming since the mid-1900s is from burning of coal, oil and gas. Burning these fuels is how we produce most of the power we use. This burning adds carbon dioxide into the air and also traps heat inside the earth's atmosphere. These gases are called **greenhouse gases**.

What Is The Forecast For Earth's Climate?
Scientists use climate models to determine how Earth's climate will change. Climate models expect that Earth's average temperature will keep rising over the next 100 years or so. There may be a year or years where Earth's average temperature is steady or even falls. But overall, the temperature should rise.

What Is The Impact Of Earth's Warming Climate?
We can already see some of the effects of increased temperatures. For example, sea levels are rising, snow and ice cover is decreasing, and growing seasons are changing.

The warming climate likely will cause more floods, droughts and heat waves. The heat waves may get hotter, and hurricanes may get stronger.

What Is The Difference Between "Climate Change" And "Global Warming"?
"Global warming" refers to the long-term increase in Earth's average temperature.

"Climate change" refers to any long-term change in climate. This includes warming, cooling and changes besides temperature.

How Does NASA Study Climate Change?Some NASA satellites and instruments observe Earth's land, air, water and ice. Others study the sun and the amount of energy

coming from it. This is important for understanding how Earth's climate works and predicting changes.

What Is Being Done About Climate Change?
Many countries are taking steps to cut back **greenhouse gases**. These steps include using energy more **efficiently** and using more clean energy. The sun, wind and water are sources of clean energy.

What Can You Do To Help?
You can do your part by using less **energy** and **water**. For example, turn off lights and TVs when you leave a room and turn off the water when brushing your teeth. You can help by planting trees, which absorb carbon dioxide from the atmosphere.

Another way to help is by learning about Earth and its climate. The more you know about how Earth's climate works, the more you'll be able to help solve problems related to climate change.

III. AFTER READING (RECALL):

SUMMARIZE: Now that you have read and annotated this article, summarize the author's position/message using the following vocabulary:

Climate, climate change, greenhouse gas, weather, efficiently, global warming, energy, water

You can add endings to words as needed.

RELATE: What connections can you make to what you see and know about the world right now? What thoughts or opinions do you have about this topic?

REFLECT on the PURPOSE QUESTION:

Based on your reading so far, **how do you think** the current and future climate changes affect you here in Kansas City? Use text evidence about climate change in the passage you read to support your claim.

Passage 2: Climate Change in the U.S Great Plains

I. BEFORE READING (PREVIEW):

1) Scan all of the **text features** of the passage on pages 24-26 (below)
(Do not read the text yet, just read and look at the **text features**.)
2) Based on the text features, what is the **topic**?

_____

3) Brainstorm what you know (your **schema**) about this **topic**.
(What have you watched, read, experienced, hear, about this topic in the past?)

4) Write a prediction about the author's message in this text using all of the words below. If a word is unfamiliar try https://www.wordsmyth.net/ for definition, synonyms, images, and sentences using the word.

Great Plains, climate change, ecosystems, increased,irrigation, agriculture, drought

You can add endings to words as needed.

5) **Your purpose question is:** ***How does climate change affect me?***
(As you read, your purpose will be to identify evidence to answer this question.)

II. NOW IT'S TIME TO READ:

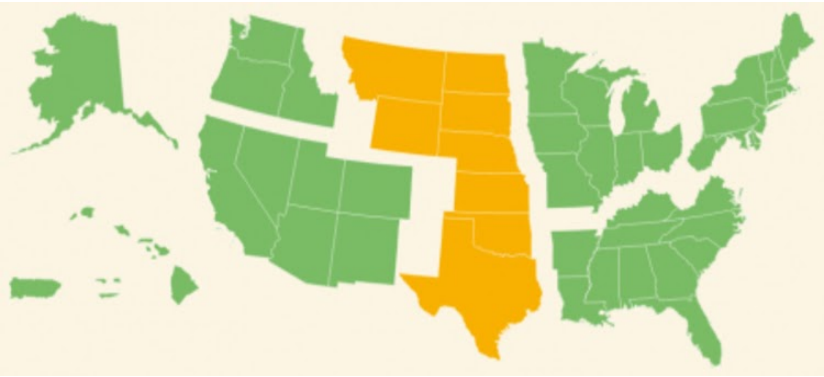
READ & ANNOTATE on the text below using the following key. ***Use all of the annotation marks*** *at least once and explain your thinking about each annotation mark in the margin.*

ANNOTATION KEY:

?	Words, phrases, and sentences that cause confusion. **Write a question about your confusion in the margin.**
○	Important, unfamiliar words
!	Main/central ideas (What is important to the author's message?)
#	Connections to prior experiences or learning. **Write about your connection in the margin.**

Climate Change in the U.S. Great Plains

https://newsela.com/read/govt-EPA-climate-great-plains/id/28423/



The Great Plains extends down the middle of the United States. The region covers the states of Montana, Wyoming, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma and Texas. Map: EPA.gov.

Overview

The Great Plains stretch from Canada to Mexico across the middle of the country. They consist of relatively flat plains. The Plains are made up of a wide range of **ecosystems**. They include forests, rangelands, marshes and desert. The region has a highly varied climate with different temperatures and amounts of rain and snow.

The region experiences a wide range of temperatures. In the mountains of Montana and Wyoming, average temperatures are less than 40 degrees Fahrenheit. In southern Texas, it is 70 degrees Fahrenheit. Warming temperatures are being felt across the Great Plains. North Dakota's average temperature has increased faster than any other state in the lower 48 states. The number of days with temperatures over 100 degrees Fahrenheit is projected to double in the northern Plains by 2050. The southern Plains are projected to experience more extreme heat, with four times the number of days over 100 degrees Fahrenheit than is currently experienced in the area. Higher

temperatures lead to greater evaporation and surface water losses and increased electricity use for air conditioning.

Average rainfall in the Great Plains changes as you go from east to west. Eastern Texas and Oklahoma experience more than 50 inches per year. Parts of Montana, Wyoming and western Texas receive less than 15 inches per year. Future patterns will vary across the region. In northern states, the amount of winter and spring rain and snow will increase, as will the number of days with heavy downpours and snowfall. In the central Great Plains, less summer rainfall is expected. This could lead to drier summers in some areas. Southern states will experience longer periods without rainfall.

Effects On Vulnerable Communities

Climate change hits young, **elderly**, ill and low-income populations the hardest. Elderly residents in remote areas and the 70 recognized indigenous tribes of the Great Plains have a lack of development, hospitals and other public services.

Climate change is also affecting tribal community **traditions** and **culture**. The earlier start of spring is changing the timing of when plants grow. Some culturally important plants and animals have disappeared. Poverty in these communities makes the situation even tougher.

Effects On Water Resources

Water in this region comes mainly from the **High Plains Aquifer** system, one of the largest freshwater aquifers in the world. An aquifer is a way for water to travel underground. The High Plains Aquifer runs beneath parts of eight states, making it one of the primary agricultural regions in the nation. The High Plains Aquifer also provides drinking water for more than 80 percent of the residents living over the aquifer. The region also uses it to produce energy through dams that generate hydroelectric power.

More water is leaving the High Plains Aquifer than is coming in. It goes out primarily through **irrigation**. The average water level has gone down by 14 feet since irrigation began around 1950. Water returns to the aquifer primarily from rain and snow. In the northern Great Plains, rain can recharge the aquifer quickly. However, with climate change, snow and rain are projected to increasingly fall in very heavy events, which can increase flooding and runoff that reduce water quality and cause soil erosion. In the southern portion, little recharge occurs, so declines in the aquifer's water level are much greater. Climate change will worsen this situation by causing drier conditions and increasing the need for irrigation.

Effects On Agriculture

Agriculture uses more than 80 percent of the land in the Great Plains. In 2012, **agriculture** business in the region was estimated to be worth $92 billion a year. Climate change will make crop and agricultural production less predictable.

In the northern Plains, crops benefit from increased rain and snow in winter and spring. However, if the fields become too wet, planting may be delayed. This affects how much can grow. The heavier rainfall will also harm crops and soil quality. Summer rainfall is not projected to rise, which increases vulnerability to **drought** conditions, while higher summer temperatures are likely to reduce plant productivity. In the central and southern Plains, the higher temperatures and decreased rainfall will increase irrigation demands. If irrigation is reduced and farmers switch to crops that need less water, crop yields could be cut in half.

The Great Plains is already experiencing warmer winters, and this winter will be even warmer. These conditions can increase the presence of some pests and invasive weeds. Additionally, winter crops are in greater danger of damage.

Livestock production is a major part of business in the Great Plains. By value, Texas produces the most cattle in the United States. Warmer temperatures and extreme heat harm animals and cause declines in meat, milk and egg production. Diseases may also increase as temperature and moisture conditions change. Increased need to cool animal buildings will raise costs.

Drought and increasing demand for water is already affecting the livestock industry. Raising animals requires large amounts of water. Some of the largest water use in the country occurs in the Great Plains. Texas uses the most water for livestock in the country. Livestock production will continue to increase water demand.

Effects On Ecosystems

Climate and land use in the Great Plains are altering many ecosystems. Land is developed for energy production and expanding cities, which breaks up **habitats**. Plants and animals cannot adapt to changes by moving to new areas. Climate change is also increasing pest outbreaks, increasing wildfires and changing when plants flower.

Climate change is affecting animals hunted for food, including ducks, deer and fish. Many of these animals rely on shallow lakes that periodically dry out. These areas provide habitat for many species to mate and raise offspring. The lakes also help recharge the High Plains Aquifer. Agricultural practices have changed more than 70 percent of the large lakes that fill up during certain seasons in the southern Great Plains. As temperatures continue to rise, the bird and fish populations that rely on these areas are increasingly affected.

III. AFTER READING (RECALL):

SUMMARIZE: Now that you have read and annotated this article, summarize the author's position/message using the following vocabulary:

Great Plains, climate change, ecosystems, Increased, irrigation, agriculture, drought

You can add endings to words as needed.

RELATE: What connections can you make to what you see and know about the world right now? What thoughts or opinions do you have about this topic?

REFLECT on the PURPOSE QUESTION:

Based on your reading so far, what effects of global warming or climate change do you think you have or will experience in your lifetime? Use evidence from your readings to justify your answer.

Passage 3: Humanity will Find Ways to Adapt to Climate Change

I. BEFORE READING (PREVIEW):

1) Scan all of the **text features** of the passage on pages 29-30 (below)
   (Do not read the text yet, just read and look at the **text features**.)
2) Based on the text features, what is the **topic**?
   _____
3) Brainstorm what you know (your **schema**) about this **topic**.
   (What have you watched, read, experienced, heard, about this topic in the past?)

4) Write a prediction about the author's message in this text using all of the words below. If a word is unfamiliar try https://www.wordsmyth.net/ for definition, synonyms, images, and sentences using the word.

adaptations, climate change, destructive, weather, collective-response, political economy, migration

You can add endings to words as needed.

5) **Your purpose question is:** ***How does climate change affect me?***
   (As you read, your purpose will be to identify evidence to answer this question.)

II. NOW IT'S TIME TO READ:

READ & ANNOTATE on the text below using the following key. ***Use all of the annotation marks*** *at least once and explain your thinking about each annotation mark in the margin.*

ANNOTATION KEY:

?	Words, phrases, and sentences that cause confusion. **Write a question about your confusion in the margin.**
○	Important, unfamiliar words (circle)
!	Main/central ideas (What is important to the author's message?)
#	Connections to prior experiences or learning. **Write about your connection in the margin.**

Humanity will Find Ways to Adapt to Climate Change

https://newsela.com/read/election-2020-adapting-to-climate-change/id/2001005223/?collection_id=339

Image: A movable system, the Thames Barrier on the Thames River in London, England, was made to stop the surrounding areas from being flooded because of high water levels. Photo: Andy Roberts/Wikimedia Commons

Editor's Note: The opinions in this essay are those of the writer and do not necessarily represent the views of Newsela or its editors. Political language, word choice and position belong to the author alone.

Last year, Hurricane Dorian tore through the Bahamas, devastating the islands. Such destructive storms are becoming more common due to climate change. After these storms, the people affected must make important decisions. Should they put money into developing better drainage, rebuild with stronger design and materials, or should they just move? The weather will certainly get worse in the future, bringing higher seas, fiercer storms and more rain. People will have to adapt in order to reduce the human

and economic costs of the changing climate. However, large-scale **adaptations** will cost money, which may further complicate the complex politics surrounding the issue.

Adaptation Likely To Play Large Role

All this means that adaptation is likely to play a large role in **humanity's response** to climate change. Indeed, the price of agricultural land already accounts for the expected impact of climate change. Consumers already react to extreme weather events, as evidenced by the fact that purchases of air-conditioners rise after heat waves. Some individuals may adapt by choosing to take a job in a place with less extreme weather. A few cities are making more obvious adaptations. New York City plans to construct a series of raised flood-control berms around the southern end of Manhattan.

As demand rises for ways to ease the pain of climate change, supply will respond. A growing market for goods will force producers to come up with new products. Companies that are taking big steps to be environmentally friendly are betting that governments will eventually get serious about emissions. The market for better means of coping with climate change is already growing daily.

Experts predict that the effects of climate change will be much more serious if people do not adapt. One study estimated that floods will impact the **economy** and trade by 2200 by 4.5 percent. Global GDP is basically the combined amount of money from all the goods produced and sold, including everyone's salaries, of all the countries in the world in a year.

Investments And Migration

However, if people adapt through investments and **migration,** the loss drops to just 0.11 percent. The Global Commission on Adaptation is a group of 20 richer and still-developing countries. The commission has listed $1.8 trillion worth of investments that could enable adaptation. The largest one is spending on making infrastructure (roads, ports, electricity, sanitation, sewer and communications systems) climate-proof. Other investments include improving irrigation of farmland in dry areas and protecting water resources. If these investments are made soon, they would result in estimated benefits of $7.1 trillion.

However, even if some people can adapt to a warmer world, it is still a big problem. If unchecked, global warming could result in devastating scenarios that outstrip any capacity to adapt. Moreover, the ability to adapt varies dramatically from place to place. North America and mainland Europe both have relatively steady climates. Rich people in these areas have money to spend on adaptation. They can move from the worst-hit spots with relative ease. Poor people have little spare cash, mostly live in hotter places and face far more hardships when they try to migrate.

III. AFTER READING (RECALL):

SUMMARIZE: Now that you have read and annotated this article, summarize the author's position/message using the following vocabulary:

adaptations, climate change, destructive, weather, collective-response, political economy, migration

You can add endings to words as needed.

RELATE: What connections can you make to what you see and know about the world right now? What thoughts or opinions do you have about this topic?

REFLECT on the PURPOSE QUESTION:

Based on this passage, what are some ways you, your community and Kansas City may adapt to climate change? Use evidence from your reading to justify your thinking.

RAFT WRITING RESPONSE

Directions:

1. Decide which RAFT exercise you want to do. Always read across the chart.
2. Look at the 1st column of ROLES. A role is the person you are pretending to be. This is the voice you will write from. Select a role that interests you.
3. Who is the AUDIENCE you will be writing to? You must write to the AUDIENCE that matches the ROLE you chose.
4. Look at the 3rd column that goes with your ROLE. THe FORMAT is the way you will write to your AUDIENCE.
5. What will you write about? What will a writer in the ROLE you chose, know about the topic in the 4th column? You will use evidence from the 3 texts you read to write about this TOPIC.
5. You have four options, choose one. Write 3 -5 paragraphs based on the row you choose from the chart below.

ROLE (you)	AUDIENCE	FORMAT	TOPIC
Citizen of Kansas	Other Kansans	Newspaper editorial	What can we do in Kansas to make a difference for climate change and adapt to the climate changes already occurring?
Teenager in 2020	Future teenagers	Journal entry	What did your parents and grandparents do with the environment that you think your generation needs to do differently?
Parent / grandparent	children/ grandchildren	Letter	What does the parent/grandparent regret about what their generation did? What would you recommend that future generations do?
Farmer	Book publisher	Proposal	Convince the publisher of a book idea about a farmer's life during climate change. What do farmers have to deal with and how will they adapt.

English Language Arts/Literacy

Grade: 7

May 4 - May 15, 2020

Passage 1: Human Rights: Questions and Answers

I. BEFORE READING (PREVIEW):

1) Scan all of the **text features** of the passage on pages 36-38 (below)
(Do not read the text yet, just read and look at the **text features**.)

What are text features? Titles, subtitles, pictures, graphs, bold-faced words, anything the author does to help you understand the text.

2) Based on the text features, what is the **topic**?

_____

3) Brainstorm what you know (your **schema**) about this **topic**.
(What have you watched, read, experienced, heard, about this topic in the past?)

4) Write a prediction about the author's message in this text using all of the words below. If a word is unfamiliar try https://www.wordsmyth.net/ for definition, synonyms, images, and sentences using the word.

human rights, civil rights, violations, enforced, laws of war, civilians, jurisdiction, court

You can add endings to words as needed.

5) **Your purpose question is:** ***How are your human rights protected?***
(As you read, your purpose will be to identify evidence to answer this question.)

II. NOW IT'S TIME TO READ:

READ & ANNOTATE on the text below using the following key. ***Use all of the annotation marks*** *at least once and explain your thinking about each annotation mark in the margin.*

ANNOTATION KEY:

?	Words, phrases, and sentences that cause confusion. **Write a question about your confusion in the margin.**
○	Important, unfamiliar words (circle)
!	Main/central ideas (What is important to the author's message?)
#	Connections to prior experiences or learning. **Write about your connection in the margin.**

Human Rights: Questions and Answers

https://newsela.com/read/lib-human-rights/id/27599/

A photo taken in 1993 of a trilingual (Tibetan-Chinese-English) police notice placed above the entrance to a small cafe in Nyalam, Tibet. China took over Tibet in 1950, and Tibetan monks have protested for their independence many times since. Human rights organizations have been critical of China's approach to human rights in Tibet. Photo by: John Hill, Wikimedia Commons.

When people talk about human rights, what do they really mean? The language of human rights seems to be everywhere, but it's not always clear what's behind it.

What are human rights?

Human rights are rules that say how governments must treat people. They are the

basic rights and freedoms that everyone deserves because they are human. Human rights include civil and political rights, as well as economic, social and cultural rights.

Human rights are taken from different cultures, religions and ideas from around the world. People have human rights at all times and in all places. Human rights protect everyone equally. They do not depend on a person's race, sex, religion or political views.

How are human rights different from civil rights?

Faraz Sanei is a researcher at Human Rights Watch. He believes that crimes are generally not human rights violations. If a person commits murder, that's a criminal act, not a human rights violation. But it may be a different case if that person continues to murder, or if a group of people commits many murders. If the country does not put them on trial, then the country could be in violation of human rights.

How are human rights defined?

The United Nations (U.N.) adopted the Universal Declaration of Human Rights in 1948. This document said that all people have basic rights. It also declared that all nations must respect these rights. Since it was adopted, countries have signed more than two dozen global treaties in support of human rights.

The core human rights treaties include:

The International Covenant on Civil and Political Rights: Civil and political rights mainly protect individuals from state power. They include rights to life and liberty, fair trials and protection from torture. They also include the freedoms of expression, religion and peaceful protest.

The International Covenant on Economic, Social and Cultural Rights: Economic, social and cultural rights include rights to housing, education and health care.

Other treaties focus on ending specific crimes, such as torture and slavery. Some treaties protect the rights of particular groups, such as minorities, women, refugees, children and people with disabilities.

The United Nations also has rules and guidelines that explain certain rights. Different international organizations, including the U.N. Humans Rights Committee, make sure governments follow human rights agreements.

How are human rights enforced?

Governments are primarily responsible for enforcing human rights. They must guarantee that officials treat people fairly, punish offenders and create ways for people to seek help for rights violations. For example, governments must have fair and independent courts. Each country must make sure that people who violate human rights are punished. The failure to do so can itself be a human rights violation.

Sometimes governments commit human rights violations. When that happens, victims must seek help from outside organizations. Some organizations help victims by representing them in court. Others, including Human Rights Watch, put pressure on governments to change their laws.

What about human rights in armed conflict?

Laws of war are different from human rights. Human rights law applies at all times. The laws of war only apply during wartime. But the laws of war do not stop war. Instead, they say how war must be fought to protect non-soldiers, treat prisoners fairly and reduce suffering. Customs of war have existed for thousands of years, but international treaties go back about 150 years. The Geneva Conventions and the Land Mines Treaty are two of the best known. The Geneva Conventions describe how prisoners of war and civilians must be treated during wartime. The Land Mines Treaty bans the use of landmines, or bombs that go off when someone steps on them.

What about prosecutions of rights violators?

A country may put anyone on trial for committing serious violations of international human rights law. The person on trial does not have to be a citizen of the country, and

the crime can take place anywhere in the world. This is allowed because of something called "universal jurisdiction."

The International Criminal Court was set up in 2002. It puts people on trial for very serious crimes such as genocide and war crimes.

How do human rights evolve?

Human rights grow and change over time. This happens as new groups begin to push for their rights. About 15 years ago, lesbian, gay, bisexual and transgender (LGBT) people began to fight for their human rights at the Human Rights Council in Switzerland.

III. AFTER READING (RECALL):

SUMMARIZE: Now that you have read and annotated this article, summarize the author's position/message using the following vocabulary:

human rights, civil rights, violations, enforced, laws of war, civilians, jurisdiction, court

You can add endings to words as needed.

RELATE: What connections can you make to what you see and know about the world right now? What thoughts or opinions do you have about this topic?

REFLECT on the PURPOSE QUESTION:

Based on your reading so far, **how do you think** your human rights are protected in the United States? Use the text evidence to explain what rights you know are protected and **how you think** they are protected.

Passage 2: Universal Declaration of Human Rights

I. BEFORE READING (PREVIEW):

1) Scan all of the **text features** of the passage on pages 40-43 (below) (Do not read the text yet, just read and look at the **text features**.)
2) Based on the text features, what is the **topic**?

   _____

3) Brainstorm what you know (your **schema**) about this **topic**.
   (What have you watched, read, experienced, hear, about this topic in the past?)

4) Write a prediction about the author's message in this text using all of the words below. If a word is unfamiliar try https://www.wordsmyth.net/ for definition, synonyms, images, and sentences using the word.

Hatred, fundamental rights, oppression, tyranny, declaration, liberty, equally, discrimination

You can add endings to words as needed.

5) **Your purpose question is:** ***How are your human rights protected?***
(As you read, your purpose will be to identify evidence to answer this question.)

II. NOW IT'S TIME TO READ:

READ & ANNOTATE on the text below using the following key. ***Use all of the annotation marks*** *at least once and explain your thinking about each annotation mark in the margin.*

ANNOTATION KEY:

?	Words, phrases, and sentences that cause confusion. **Write a question about your confusion in the margin.**
○	Important, unfamiliar words
!	Main/central ideas (What is important to the author's message?)
#	Connections to prior experiences or learning. **Write about your connection in the margin.**

Universal Declaration of Human Rights

Former first lady Eleanor Roosevelt holds the United Nations Universal Declaration of Human Rights, this copy written in Spanish, in November 1949. President Harry Truman had appointed Roosevelt as a representative to the young United Nations organization. She chaired the U.N. Human Rights Commission that wrote the Universal Declaration of Human Rights

Introduction: *All members of the human family have fundamental rights. They are the foundation of freedom, justice and peace in the world.*

Hatred of human rights has resulted in horrible acts. They have shocked the world. All human beings now want to enjoy the same freedoms of speech and religion. They also seek freedom from fear, hunger and poverty.

Human rights should be protected by the law. Man should not be forced to rebel against the rule of cruel dictators. It is important that there be friendly relations between nations.

The peoples of the United Nations support fundamental human rights, the worth of humans and equal rights of men and women.

This is the Universal Declaration of Human Rights. It is for all peoples and all nations. Every individual and every country should follow this Declaration. It can teach respect for rights and freedoms throughout the world.

Article 1 *All human beings are born free and equal. They should act fairly towards one another. There should be a spirit of brotherhood.*

Article 2 *Everyone of any race, color, sex, language, or religion shall have the rights and freedoms in this Declaration.*

Article 3 *Everyone has the right to life, liberty and safety.*

Article 4 *No one shall be a slave. The slave trade shall be prohibited.*

Article 5 *No one shall be tortured or cruelly punished.*

Article 6 *Everyone is protected equally by the laws.*

Article 7 *All shall have equal protection in a court of law.*

Article 8 *We can all ask for the law and courts to help us when we are not treated fairly.*

Article 9 *No one shall be arrested and held without a reason.*

Article 10 *Everyone has rights to a fair and public hearing in front of judges in a court of law.*

Article 11 *(1) Everyone charged with a crime shall have a lawyer. People are innocent until proven guilty in a public trial.*

(2) The penalty for a crime must be the same penalty that was in place when the law was broken. Penalties can't be changed in unfair ways.

Article 12 *Everyone has the right to privacy. No one can just go into a person's house. No one can open someone's mail or spy on someone. The government can only invade a person's privacy if it has a very good reason. The right to privacy protects a person's reputation, too.*

Article 13 *(1) Everyone has the right to move freely in their country.*

(2) Everyone has the right to leave and return to their country.

Article 14 *(1) Everyone has the right to seek safety in another country.*

(2) The right to seek safety in another country does not apply to acts that are just basic crimes.

Article 15 *(1) Everyone has the right to be a citizen of a country.*

(2) A citizen can leave their country and become a citizen of another country.

Article 16 *(1) Men and women of all races, nationalities or religions have the right to marry and have a family. They have equal rights to marry and divorce.*

(2) Both people in a marriage must freely agree to marry.

(3) A family is an important group that is to be protected by the government.

Article 17 *(1) Everyone has the right to own property like land or a home.*

(2) No one can have their property taken without a very good reason.

Article 18 *Everyone has the right to freedom of thought and religion. This right includes the freedom to change religions or ways of thinking.*

Article 19 *Everyone has the right to freedom of opinion and expression. This right includes freedom to share information and ideas through any media (newspapers, books, etc).*

Article 20 *(1) Everyone has the right to meet peacefully with anyone or any group.*

(2) No one may be forced to join a group.

Article 21 *Everyone has the right to apply for a job in the government of his country. The will of the people shall direct the government. Men and women will get to vote by secret ballot.*

Article 22 *We all have the right to a home, to have enough money to live on and medical help if we are ill. Everyone has social and cultural rights, like enjoying music, arts, sports that help to develop their skills and personality.*

Article 23 *(1) Everyone has the right to work in a safe workplace. People should be able to choose where they work. They shall also have protection against unemployment.*

(2) Everyone has the right to the same amount of money if they do the same amount of work.

(3) Everyone who works has the right to fair pay.

(4) Everyone has the right to form and join trade unions for the protection of theirs job and safety at work.

Article 24 *Everyone has the right to rest and have time away from work. There should be limits on the number of hours of work. Workers should get holidays with pay each year.*

Article 25 *(1) Everyone has the right to a life with good health for himself and his family. This includes food, clothing, housing, medical care and necessary social services. There should also be help in case of unemployment, sickness, or things beyond his control.*

(2) Motherhood and childhood need special care. All children, whether born to one or two parents, shall be protected.

Article 26 *(1) Everyone has the right to education. There must be free elementary education for all. A college education shall be offered equally for those that study well.*

(2) Education should strengthen respect for human rights. It leads to understanding and friendship among all nations, races and religions. It helps support the United Nations peace efforts.

(3) Parents have rights to choose the kind of education given to their children.

Article 27 *(1) Everyone has the right to enjoy the arts, inventions and books.*

(2) Everyone has the right to be paid for art, inventions or books they have created. (copyright law)

Article 28 *Everyone is free to live in a country with the human rights listed in this Declaration.*

Article 29 *We have a duty to other people, and we should protect their rights and freedoms. Everyone owes something to their community because it protects their human rights. People must protect other people's rights. This is the way a democracy works.*

Article 30 *This Declaration shall protect human rights.*

III. AFTER READING (RECALL):

SUMMARIZE: Now that you have read and annotated this article, summarize the author's position/message using the following vocabulary:

Hatred, fundamental rights, oppression, tyranny, declaration, liberty, equally, discrimination

You can add endings to words as needed.

RELATE: What connections can you make to what you see and know about the world right now? What thoughts or opinions do you have about this topic?

REFLECT on the PURPOSE QUESTION:

After reading the articles of the Universal Declaration of Human Rights, what do you believe is one area of human rights that the United States struggles with? Use evidence from your reading and your own experiences to explain your reasoning.

Passage 3: Understanding the Rights of Children

I. BEFORE READING (PREVIEW):

1) Scan all of the **text features** of the passage on pages 46-48 (below)
   (Do not read the text yet, just read and look at the **text features**.)
2) Based on the text features, what is the **topic**?

   _____

3) Brainstorm what you know (your **schema**) about this **topic**.
   (What have you watched, read, experienced, heard, about this topic in the past?)

4) Write a prediction about the author's message in this text using all of the words below. If a word is unfamiliar try https://www.wordsmyth.net/ for definition, synonyms, images, and sentences using the word.

Treaty, protect, children, exploit, violence, pledge, obligation, enforce

You can add endings to words as needed.

5) **Your purpose question is:** ***How are your human rights protected?***
   (As you read, your purpose will be to identify evidence to answer this question.)

II. NOW IT'S TIME TO READ:

READ & ANNOTATE on the text below using the following key. ***Use all of the annotation marks*** *at least once and explain your thinking about each annotation mark in the margin.*

ANNOTATION KEY:

?	Words, phrases, and sentences that cause confusion. **Write a question about your confusion in the margin.**
○	Important, unfamiliar words (circle)
!	Main/central ideas (What is important to the author's message?)
#	Connections to prior experiences or learning. **Write about your connection in the margin.**

Opinion: Understanding the Rights of Children

By Human Rights Watch

Children sit in a school in Bamozai, Afghanistan. The school has no building. Classes are held outdoors in the shade of an orchard. Photo by: Captain John Severns/Wikimedia

The **Convention on the Rights of the Child** is an international treaty. It was adopted by the United Nations, or U.N., on November 20, 1989. The treaty establishes global standards to ensure the protection, survival and development of all children, without discrimination.

Countries that sign the treaty pledge to protect children from exploitation, violence and other forms of abuse. They also **pledge** to advance the rights of children to education, health care and a decent standard of living.

How many countries have ratified the convention?
The Convention on the Rights of the Child is the most rapidly and widely approved human rights treaty in history. It has been signed by 194 countries.

The only countries that have not signed the treaty are Somalia, South Sudan and the United States.

How has the convention improved the lives of children?
Many countries have used the treaty to strengthen their national laws and improve the lives of children. Children are now better off in many ways than they were 25 years ago.

The treaty has encouraged greater attention to children's right to health; those born today are more than twice as likely to reach their fifth birthday than a child born 25 years ago. The **obligation** of countries to provide free primary education has meant that children are much more likely to attend school. In 1990, only 53 percent of children in the least developed countries were enrolled in school; today it's 81 percent.

With greater restrictions placed on employing children, child labor rates have dropped. In the 1990s, nearly 1 in 4 children under 15 were working. Today, it is fewer than 1 in 8. Now, 42 countries prohibit all forms of physical punishment against children, compared with only four in 1989 when the treaty was adopted.

How are governments failing to implement the convention?
Many children have been left out of the progress of the last 25 years. Although many countries have adopted new laws protecting children, they often fail to enforce them. At least 58 million children are not in school — particularly girls, children from poor families and children with disabilities. Many children suffer and die from diseases that can be easily prevented.

The International Labor Organization is an agency in the U.N. that studies labor, or work, in member countries. It estimates that 168 million children are doing labor. Every day, about 38,000 girls around the globe are married before they turn 18.

How is the convention enforced?
Countries that sign the treaty must submit reports every five years to a U.N. committee of independent experts. The committee examines the reports along with other information to identify areas of progress and concern. It recommends steps that the country should take to improve the lives of children.

The U.N. also allows individuals to submit complaints to the committee if their rights are violated. The committee may then investigate the complaints and make recommendations to the country responsible for the violation.

Why hasn't the United States signed the treaty?
Of the three countries that have not signed the treaty, only the United States has not stated an intention to do so. U.S. officials, as well as some organizations, have made various arguments against signing the treaty. Some claim that since U.S. laws are already in compliance with most elements of the treaty, there is no need to sign it. However, U.S. laws and practices go against the treaty in important ways.

For instance, people in the U.S. who have committed crimes before the age of 18 can still be sentenced to life in prison. They can be sentenced without the possibility of being released again, even on good behavior. In certain cases, U.S. child labor laws allow kids to be put to work in agriculture. They can do so even if they are as young as 12.

Others have argued that the treaty is "anti-family." They claim that signing it would undermine the freedom of parents to raise and educate their children themselves. In fact, the treaty refers repeatedly to the rights and responsibilities of parents to raise and provide instruction for their children.

What should governments do to better fulfill the rights of children?
The rights of millions of children are still violated on a daily basis. Governments should take several key steps to carry out their international obligations to children.

First, they should review national laws to make sure that they are in compliance with the treaty. For example, governments should ensure that child labor, child marriage and all forms of violence against children are strictly prohibited. They should also ensure accountability for violations of children's rights. Complaint and investigation procedures should be in place to ensure that abusers are held responsible.

Governments should also expand practices with proven track records for increasing school enrollment and improving children's health. They should identify children who are being excluded from school, health and other services. In many cases, these are girls, children with disabilities and minorities. Governments should adopt plans and policies to ensure that these children have access to services. They should also abandon policies that are proven ineffective and damaging to children.

III. AFTER READING (RECALL):

SUMMARIZE: Now that you have read and annotated this article, summarize the author's position/message using the following vocabulary:

Treaty, protect, children, exploit, violence, pledge, obligation, enforce

You can add endings to words as needed.

RELATE: What connections can you make to what you see and know about the world right now? What thoughts or opinions do you have about this topic?

REFLECT on the PURPOSE QUESTION:

Based on your experience as a human and a child, what rights are you grateful for? Which rights do you think are not being fully protected in the world? Use evidence from the texts and your own research or experience to defend your thinking.

RAFT WRITING RESPONSE

Directions:

1. Decide which RAFT exercise you want to do. Always read across the chart.

2. Look at the 1st column of ROLES. A role is the person you are pretending to be. This is the voice you will write from. Select a role that interests you.

3. Who is the AUDIENCE you will be writing to? You must write to the AUDIENCE that matches the ROLE you chose.

4. Look at the 3rd column that goes with your ROLE. THe FORMAT is the way you will write to your AUDIENCE.

5. What will you write about? What will a writer in the ROLE you chose, know about the topic in the 4th column? You will use evidence from the 3 texts you read to write about this TOPIC.

5. You have three choices, choose one or make up on RAFT of your own to put in the last row. Write 3 -5 paragraphs based on the row you choose from the chart below.

ROLE (you)	AUDIENCE	FORMAT	TOPIC
A KCKPS student	Congress	Speech	Convince the members of our government to ratify this treaty on children's rights. Identify the reasons the US should be a part of this treaty.
Children's rights activist	United Nations	Letter	Explain the importance of education for the children of the world and why they should take a more active role in protecting education for all children no matter race, religion, or gender.
Refugee mother in US from Syria	Blog for Refugees	Blog post	Explain the importance of children's rights and how you think they are and are not being protected here in the United States.
You Choose:	You choose:	You Choose:	You Choose:

REVIEW: Adding and Subtracting Whole Numbers

Name _____

Key Concept and Vocabulary

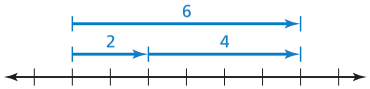
sum: $8 + 5 = 13$ (terms: 8, 5)

difference: $16 - 6 = 10$ (terms: 16, 6)

Visual Model

To add on a number line, move to the *right*.

$2 + 4 = 6$



To subtract on a number line, move to the *left*.

Skill Examples

1. $12 + 17 = 29$
2. $23 + 0 = 23$
3. $114 + 5 + 18 = 137$
4. $9 - 4 = 5$
5. $16 - 0 = 16$
6. $139 - 39 = 100$

Application Example

7. You spent \$3 for socks, \$28 for gym shoes, \$18 for a T-shirt, and \$15 for shorts. How much did you spend for your gym outfit?

$3 + 28 + 18 + 15 = 64$

∴ You spent \$64.

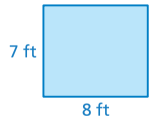
PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

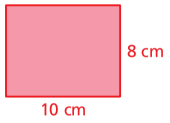
Find the sum or difference.

8. $21 + 7 =$ _____
9. $94 + 0 =$ _____
10. $104 + 142 =$ _____
11. $1147 + 234 =$ _____
12. $19 - 18 =$ _____
13. $39 - 29 =$ _____
14. $72 - 49 =$ _____
15. $1035 - 246 =$ _____
16. $941 - 0 =$ _____
17. $12 + 5 + 8 =$ _____
18. $31 + 1 + 1 =$ _____
19. $123 + 41 + 18 =$ _____

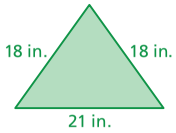
Find the perimeter of the rectangle or triangle.

20. 

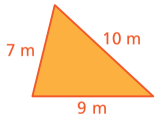
Perimeter = _____

21. 

Perimeter = _____

22. 

Perimeter = _____

23. 

Perimeter = _____

24. **RUNNING** You ran 2 miles on Monday, 2 miles on Tuesday, 3 miles on Wednesday, 2 miles on Thursday, and 4 miles on Friday. How many miles did you run during the week? _____

25. **PLANNING A SHOPPING TRIP** You have \$27 and take another \$32 from your savings account. How much will you have left after buying a shirt for \$18 and a pair of jeans for \$29. Explain.

_____

_____

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REVIEW: Multiplying Whole Numbers

Name _____

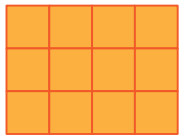
Key Concept and Vocabulary

factors: 3, 4 — product: 12

$3 \cdot 4 = 12$

Visual Model

A rectangle that is 3 units by 4 units has an area of 12 square units.



Area $= 3 \times 4$

$= 12$ square units

Skill Examples

1. $6 \cdot 7 = 42$
2. $0 \times 5 = 0$
3. $8 \cdot 1 = 8$
4. $(9)(12) = 108$
5. $15 \times 20 = 300$

Application Example

6. Find the area of a rectangular lot that is 20 yards wide and 35 yards long.

Area = (length)(width)

$= 35 \cdot 20$

$= 700$ yd^2

∴ The area is 700 square yards.

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Check your answers at BigIdeasMath.com.

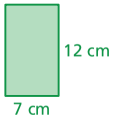
Find the product.

7. $8 \cdot 12 =$ _____
8. $15 \times 12 =$ _____
9. $(13)(20) =$ _____
10. $2 \cdot 240 =$ _____
11. $13 \times 6 =$ _____
12. $(11)(8) =$ _____
13. $19 \cdot 21 =$ _____
14. $30 \times 100 =$ _____
15. $0 \cdot 114 =$ _____
16. $26 \times 1 =$ _____
17. $4 \cdot 10 \cdot 8 =$ _____
18. $9 \cdot 14 \cdot 2 =$ _____

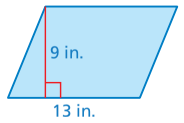
Find the area of the rectangle or parallelogram.

19.

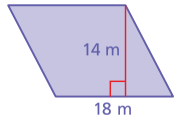
Area = _____

20. 

Area = _____

21. 

Area = _____

22. 

Area = _____

23. **SCHOOL BUS** Each school bus can carry a maximum of 50 passengers. What is the maximum number of passengers that 12 school buses can carry? _____

24. **PAPER CUPS** Each package contains 65 paper cups. You buy four packages. Do you have enough paper cups for 250 people to each have one? How do you know?

_____

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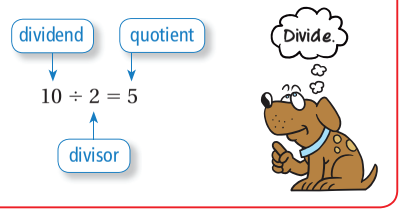
REVIEW: Dividing Whole Numbers

Name _____

Key Concept and Vocabulary



Visual Model

If you divide 6 units into 3 equal parts, each part will have 2 units.

$6 \div 3 = 2$

Skill Examples

1. $42 \div 6 = 7$

2. $\frac{65}{13} = 65 \div 13 = 5$

3. $15\overline{)195}$ — $\begin{array}{r} 13 \\ 15 \\ \hline 45 \\ 45 \\ \hline 0 \end{array}$ ⁘ $195 \div 15 = 13$

Application Example

4. Six people find a treasure worth $12,300. If each person receives an equal share, how much does each person get?

$\$12{,}300 \div 6 = \$2050$

⁘ Each person gets $2050.

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Check your answers at BigIdeasMath.com.

Find the quotient.

5. $56 \div 8 =$ _____

6. $99 \div 11 =$ _____

7. $132 \div 6 =$ _____

8. $80 \div 5 =$ _____

9. $\frac{88}{4} =$ _____

10. $\frac{156}{3} =$ _____

11. $\frac{430}{86} =$ _____

12. $\frac{3082}{23} =$ _____

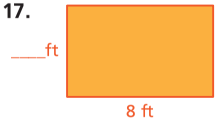
13. $18\overline{)216}$

14. $12\overline{)960}$

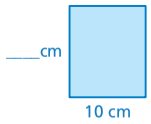
15. $9\overline{)567}$

16. $19\overline{)323}$

Find the height of the rectangle or parallelogram.

17. 

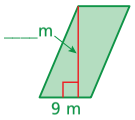
Area = 40 ft²

18. 

Area = 120 cm²

19.

Area = 168 in.²

20. 

Area = 144 m²

21. **PARTY PUNCH** A punch bowl contains 6 quarts of punch. There are 32 fluid ounces in a quart. How many 4-fluid ounce cups will the punch bowl serve? _____

22. **SHARING THE PROFIT** You and three friends start a small business. Your total income is $820 and your total expenses are $360. You share the profit evenly. How much do each of you get? Explain. _____

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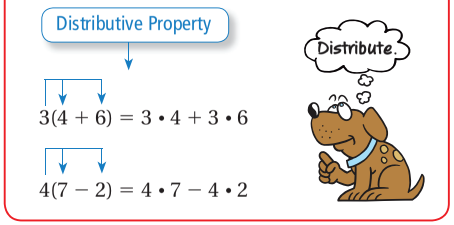
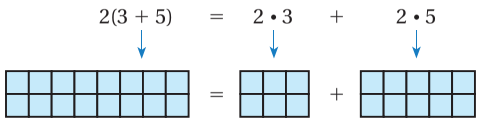
REVIEW: Distributive Property

Name _____

Key Concept and Vocabulary



Visual Model



Skill Examples

1. $3(9 + 4) = 3 \cdot 9 + 3 \cdot 4$
2. $7(10 - 3) = 7 \cdot 10 - 7 \cdot 3$
3. $6 \cdot 8 + 6 \cdot 7 = 6(8 + 7)$
4. $12 \cdot 9 - 12 \cdot 2 = 12(9 - 2)$
5. $5(2 + 5 + 3) = 5 \cdot 2 + 5 \cdot 5 + 5 \cdot 3$

Application Example

6. You buy 3 hot dogs for $1.25 each and 3 sodas for $0.75 each. Find the total cost.

$3(1.25) + 3(0.75) = 3(1.25 + 0.75)$

$= 3(2.00)$

$= 6$

⁘ The total cost is $6.00.

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Check your answers at BigIdeasMath.com.

Use the Distributive Property to rewrite the expression.

7. $3(4 + 5) =$ _____

8. $5(8 - 3) =$ _____

9. $9(11 + 7) =$ _____

10. $8(27 - 9) =$ _____

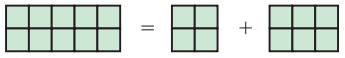
11. $6(17 - 7) =$ _____

12. $4(7 + 3 + 2) =$ _____

13. $5 \cdot 7 + 5 \cdot 3$ _____

14. $2 \cdot 9 - 2 \cdot 6 =$ _____

15. $7 \cdot 4 + 7 \cdot 8 =$ _____

16. 

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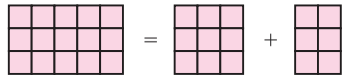
17. 

_____

18. **MENTAL MATH** You buy 5 hot dogs for $1.29 each and 5 sodas for $0.71 each. Show how you can use mental math to find the total cost.

_____

19. **EXTENSION** Does the Distributive Property apply to a combination of addition *and* subtraction? Decide using the expression $3(7 + 5 - 4)$.

_____

_____

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REVIEW: Exponents

Name _____

Key Concept and Vocabulary

multiplication, exponent

$2 \cdot 2 \cdot 2 = 2^3$

base

4 to the first power

$4^1 = 4$

$4^2 = 4 \cdot 4$ — 4 squared

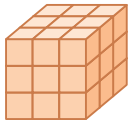
$4^3 = 4 \cdot 4 \cdot 4$ — 4 cubed

Skill Examples

1. $3^2 = 3 \cdot 3 = 9$
2. $2^4 = 2 \cdot 2 \cdot 2 \cdot 2 = 16$
3. $4^3 = 4 \cdot 4 \cdot 4 = 64$
4. $5^4 = 5 \cdot 5 \cdot 5 \cdot 5 = 625$
5. $9^5 = 9 \cdot 9 \cdot 9 \cdot 9 \cdot 9 = 59{,}049$

Application Example

6. How many small cubes are in the stack?



$3^3 = 3 \cdot 3 \cdot 3$

$= 27$

∴ 27 small cubes are in the stack.

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Check your answers at BigIdeasMath.com.

Find the value.

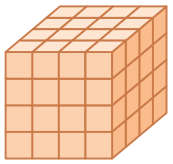
7. $3^4 =$ _____
8. $4^5 =$ _____
9. $12^3 =$ _____
10. $18^1 =$ _____
11. $5^6 =$ _____
12. $2^{10} =$ _____
13. $8^2 =$ _____
14. $7^3 =$ _____

Use an exponent to rewrite the expression.

15. $4 \cdot 4 \cdot 4 \cdot 4 =$ _____
16. $1 \cdot 1 \cdot 1 =$ _____
17. $5 \cdot 5 \cdot 5 =$ _____
18. $3 \cdot 3 \cdot 3 \cdot 3 \cdot 3 =$ _____

How many small cubes are in the stack?

19. _____ _____ _____

20.  _____ _____ _____

21. **FLYING SAUCERS** You saw 5 flying saucers. Each flying saucer had 5 aliens. Each alien had 5 eyes. How many alien eyes were there altogether? Explain your reasoning.

_____

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REVIEW: Order of Operations

Name _____

Key Concept and Vocabulary

"Please Excuse My Dear Aunt Sally"

1st **P**arentheses
2nd **E**xponents
3rd **M**ultiplication and **D**ivision (from left to right)
4th **A**ddition and **S**ubtraction (from left to right)

Simplify $4^2 \div 2 + 3(9 - 5)$.

$4^2 \div 2 + 3(9 - 5) = 4^2 \div 2 + 3 \cdot 4$

$= 16 \div 2 + 3 \cdot 4$

$= 8 + 12$

$= 20$

Skill Examples

1. $18 \div 2 - 4 = 9 - 4 = 5$
2. $12 \cdot (6 - 2) = 12 \cdot 4 = 48$
3. $14 \cdot 3 - 19 = 42 - 19 = 23$
4. $20 \div 10 + 21 \cdot 5 = 2 + 105 = 107$
5. $(2 + 3)^2 - 5 = 25 - 5 = 20$

Application Example

6. At a museum, 4 adults pay \$5 each and 6 children pay \$3 each. What is the total cost of the tickets?

$4 \cdot 5 + 6 \cdot 3 = 20 + 18$

$= 38$

∴ The total cost is \$38.

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Check your answers at BigIdeasMath.com.

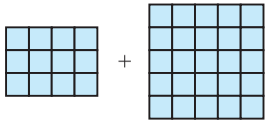
Simplify.

7. $3^2 + 5(4 - 2) =$ _____
8. $3 + 4 \div 2 =$ _____
9. $10 \div 5 \cdot 3 =$ _____
10. $4(3^3 - 8) \div 2 =$ _____
11. $3 \cdot 6 - 4 \div 2 =$ _____
12. $12 + 7 \cdot 3 - 24 =$ _____

Insert parentheses to make the statement true.

13. $5^2 - 15 \div 5 = 2$
14. $12 \cdot 2^3 + 4 = 144$
15. $91 - 21 \div 7 = 10$

Write an expression for the total area of the two rectangles. Evaluate your expression.

16. 

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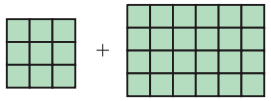
17. 

_____

18. **ADMISSION** At a baseball game, 6 adults pay \$20 each and 4 children pay \$10 each. What is the total cost of the tickets? _____

19. **INSERTING PARENTHESES** Insert parentheses in the expression $4 + 2^3 - 5 \cdot 2$ in two ways: (a) so that the value is 10 and (b) so that the value is 14.

(a) _____ (b) _____

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REVIEW: Adding and Subtracting Integers

Name _____

Key Concept and Vocabulary

terms, sum

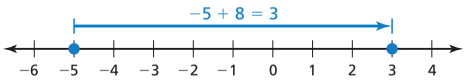
$6 + (-2) = 4$

$7 - (-3) = 10$

terms, difference

Visual Model

To add a positive number, move to the *right*.



To subtract a positive number, move to the *left*.

Skill Examples

1. $5 + (-3) = 5 - 3 = 2$
2. $5 - (-2) = 5 + 2 = 7$
3. $-2 + 4 = 2$
4. $-3 - (-2) = -3 + 2 = -1$
5. $8 - (-3) = 8 + 3 = 11$

To subtract, change the sign and add.

Application Example

6. The temperature is 8°F in the morning and drops to −5°F in the evening. What is the difference between these temperatures?

$8 - (-5) = 8 + 5$

$= 13$

∴ The difference is 13 degrees.

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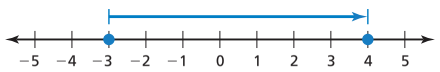
Check your answers at BigIdeasMath.com.

Find the sum or difference.

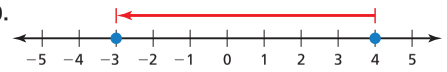
7. $-2 + 3 =$ ____
8. $-4 - 5 =$ ____
9. $8 - 2 =$ ____
10. $8 - (-2) =$ ____
11. $-4 - (-1) =$ ____
12. $-5 + (-5) =$ ____
13. $4 - (-8) =$ ____
14. $4 - 8 =$ ____
15. $-4 + (-6) =$ ____
16. $-4 - (-6) =$ ____
17. $10 - 13 =$ ____
18. $13 - (-10) =$ ____

Write the addition or subtraction shown by the number line.

19.



20.



21. **TEMPERATURE** The temperature is 16°F in the morning and drops to −15°F in the evening. What is the difference between these temperatures? _____

22. **SUBMARINE** A submarine is 450 feet below sea level. It descends 300 feet. What is its new position? Show your work.

_____

_____

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REVIEW: Multiplying and Dividing Integers

Name _____

Key Concept and Vocabulary

factors, product

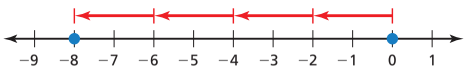
$8 \cdot (-5) = -40$

$-12 \div (-3) = 4$

dividend, divisor, quotient

Visual Model

$4 \cdot (-2) = (-2) + (-2) + (-2) + (-2)$



Skill Examples

1. $-3 \cdot (-4) = 12$
2. $-36 \div (-6) = 6$

same sign, product and quotient positive

3. $-7 \cdot 0 = 0$
4. $-10 \div 5 = -2$
5. $-5 \cdot 6 = -30$

different signs, product and quotient negative

Application Example

6. Each of your six friends owes you $5. Use integer multiplication to represent the total amount your friends owe you.

$6 \cdot (-5) = -30$

∴ The total amount owed is $30.

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Check your answers at BigIdeasMath.com.

Find the product or quotient.

7. $-3 \times (-5) =$ ____
8. $7(-3) =$ ____
9. $0 \cdot (-5) =$ ____
10. $(-5)(-7) =$ ____
11. $-8 \cdot 2 =$ ____
12. $(-5)^2 =$ ____
13. $(-3)^3 =$ ____
14. $4(-2)(-3) =$ ____
15. $-16 \div 4 =$ ____
16. $-20 \div (-5) =$ ____
17. $\frac{-9}{3} =$ ____
18. $\frac{-20}{-10} =$ ____

Complete the multiplication or division equation.

19. $-15 \div$ ____ $= -3$
20. $45 \div$ ____ $= -5$
21. ____ $\div (-20) = 5$
22. $8 \cdot$ ____ $= -64$
23. ____ $\cdot (-9) = 27$
24. $-12 \cdot$ ____ $= -96$

25. **TOTAL OWED** Each of your eight friends owes you $10. Use integer multiplication to represent the total amount your friends owe you. _____

_____

26. **TEMPERATURE** The low temperatures for a week in Edmonton, Alberta are −15°C, −12°C, −10°C, −12°C, −18°C, −20°C, and −25°C. What is the mean low temperature for the week? Show your work.

_____

_____

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REVIEW: Simplifying Fractions

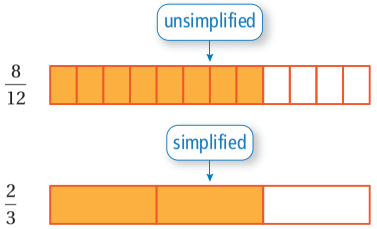
Name _____

Key Concept and Vocabulary

$$\frac{8}{12} = \frac{2 \cdot \cancel{4}}{3 \cdot \cancel{4}} = \frac{2}{3}$$

Divide numerator and denominator by common factor.

Visual Model



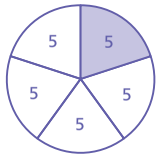
Skill Examples

1. $\frac{2}{4} = \frac{1 \cdot \cancel{2}}{2 \cdot \cancel{2}} = \frac{1}{2}$
2. $\frac{3}{6} = \frac{1 \cdot \cancel{3}}{2 \cdot \cancel{3}} = \frac{1}{2}$
3. $\frac{15}{20} = \frac{3 \cdot \cancel{5}}{4 \cdot \cancel{5}} = \frac{3}{4}$
4. $\frac{80}{100} = \frac{4 \cdot \cancel{20}}{5 \cdot \cancel{20}} = \frac{4}{5}$

Application Example

5. Five of the 25 students in your class have a Facebook account. Write this fraction in simplifed form.

$$\frac{5}{25} = \frac{1 \cdot \cancel{5}}{5 \cdot \cancel{5}} = \frac{1}{5}$$



∴ One-fifth of your class has a Facebook account.

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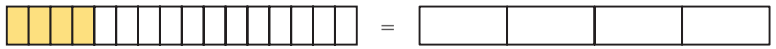
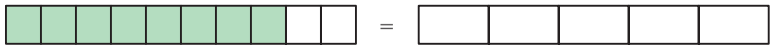
Check your answers at BigIdeasMath.com.

Simplify the fraction.

6. $\frac{16}{18} =$ _____
7. $\frac{10}{12} =$ _____
8. $\frac{6}{8} =$ _____
9. $\frac{15}{45} =$ _____
10. $\frac{12}{40} =$ _____
11. $\frac{14}{21} =$ _____
12. $\frac{6}{2} =$ _____
13. $\frac{20}{50} =$ _____
14. $\frac{12}{30} =$ _____
15. $\frac{20}{15} =$ _____
16. $\frac{75}{85} =$ _____
17. $\frac{21}{35} =$ _____

Shade the model so that the fraction is simplified.

18. 

19. 

20. **FACEBOOK** Eight of the 24 students in your class have a Facebook account. Write this fraction in simplified form. _____

21. **SIMPLIFYING** Write five different fractions that each simplify to two-fifths.

_____

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REVIEW: Estimating Fraction Sums and Differences

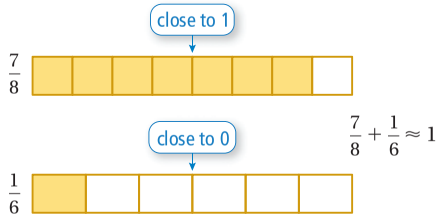
Name _____

Key Concept and Vocabulary

$$\frac{7}{8} + \frac{1}{6} \approx 1 + 0 = 1$$

Estimate proper fractions to be 0, $\frac{1}{2}$, or 1.

Visual Model

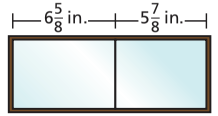


Skill Examples

1. $\frac{3}{7} + \frac{3}{8} \approx \frac{1}{2} + \frac{1}{2} = 1$
2. $\frac{8}{9} - \frac{5}{8} \approx 1 - \frac{1}{2} = \frac{1}{2}$
3. $\frac{9}{10} + \frac{6}{7} \approx 1 + 1 = 2$
4. $\frac{5}{12} - \frac{1}{16} \approx \frac{1}{2} - 0 = \frac{1}{2}$

Application Example

5. Approximate the width of the window.



$$6\frac{5}{8} + 5\frac{7}{8} \approx 6\frac{1}{2} + 6$$
$$= 12\frac{1}{2}$$

∴ The window is about $12\frac{1}{2}$ inches wide.

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Check your answers at BigIdeasMath.com.

Estimate the sum or difference.

6. $\frac{5}{9} + \frac{3}{7} \approx$ _____
7. $\frac{6}{11} + \frac{11}{13} \approx$ _____
8. $\frac{1}{10} + \frac{15}{8} \approx$ _____
9. $\frac{11}{9} + \frac{6}{7} \approx$ _____
10. $\frac{9}{10} - \frac{5}{11} \approx$ _____
11. $\frac{17}{8} - \frac{3}{5} \approx$ _____
12. $\frac{11}{9} - \frac{1}{8} \approx$ _____
13. $\frac{5}{2} - \frac{3}{7} \approx$ _____
14. $1\frac{4}{5} + 2\frac{1}{7} \approx$ _____
15. $2\frac{4}{7} + 3\frac{3}{5} \approx$ _____
16. $5\frac{9}{10} - 4\frac{6}{10} \approx$ _____
17. $1\frac{4}{5} - \frac{11}{14} \approx$ _____

Approximate the width of the window.

18.

_____

19.

_____

20. **DISTANCE** You walked $2\frac{1}{5}$ miles on Monday and $3\frac{7}{8}$ miles on Tuesday. Estimate the total number of miles you walked on Monday and Tuesday. _____

21. **ESTIMATION STRATEGY** Estimating a fraction to be 0, $\frac{1}{2}$, or 1 does not work well with fractions such as $\frac{1}{4}$ and $\frac{3}{4}$. Why?

_____

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REVIEW: Adding and Subtracting Fractions with Like Denominators

Name _____

Key Concept and Vocabulary

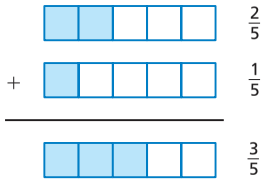
$$\frac{2}{5}+\frac{1}{5}=\frac{2+1}{5}=\frac{3}{5}$$

Like Denominators

Add or subtract numerators.

$$\frac{2}{5}-\frac{1}{5}=\frac{2-1}{5}=\frac{1}{5}$$

Visual Model



Skill Examples

1. $\frac{3}{8}+\frac{3}{8}=\frac{3+3}{8}=\frac{6}{8}=\frac{3}{4}$
2. $\frac{3}{4}+\frac{1}{4}=\frac{3+1}{4}=\frac{4}{4}=1$
3. $\frac{7}{10}-\frac{4}{10}=\frac{7-4}{10}=\frac{3}{10}$
4. $\frac{13}{25}-\frac{8}{25}=\frac{13-8}{25}=\frac{5}{25}=\frac{1}{5}$

Application Example

5. On Monday, you painted two-fifths of a house. On Tuesday, you painted the same amount. How much is left?

$$\frac{5}{5}-\left(\frac{2}{5}+\frac{2}{5}\right)=\frac{5}{5}-\frac{4}{5}=\frac{1}{5}$$

You have one-fifth left to paint.

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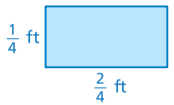
Check your answers at BigIdeasMath.com.

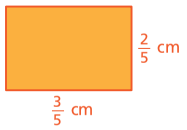
Find the sum or difference. Write your answer in simplified form.

6. $\frac{1}{9}+\frac{2}{9}=$ _____
7. $\frac{6}{11}+\frac{5}{11}=$ _____
8. $\frac{1}{10}+\frac{3}{10}=$ _____
9. $\frac{3}{4}+\frac{2}{4}=$ _____
10. $\frac{3}{8}+\frac{1}{8}=$ _____
11. $\frac{1}{5}+\frac{2}{5}+\frac{2}{5}=$ _____
12. $\frac{5}{8}-\frac{1}{8}=$ _____
13. $\frac{6}{7}-\frac{3}{7}=$ _____
14. $\frac{7}{9}-\frac{4}{9}=$ _____
15. $\frac{9}{10}-\frac{7}{10}=$ _____
16. $\frac{5}{6}-\frac{2}{6}=$ _____
17. $\frac{6}{6}-\left(\frac{1}{6}+\frac{2}{6}\right)=$ _____

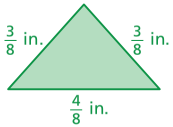
Find the perimeter of the rectangle or triangle.

18. 

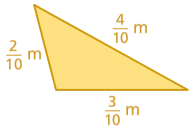
Perimeter = _____

19. 

Perimeter = _____

20. 

Perimeter = _____

21. 

Perimeter = _____

22. **REACHING YOUR GOAL** You have a savings goal. In January, you saved $\frac{2}{10}$ of your goal. In February, you saved $\frac{3}{10}$ more. How much of your goal remains? Explain.

_____

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REVIEW: Adding and Subtracting Fractions with Unlike Denominators

Name _____

Key Concept and Vocabulary

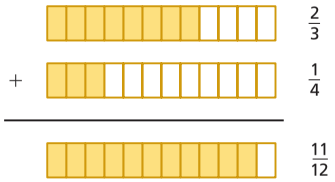
Find products.

$$\frac{2}{3}\times\frac{1}{4}=\frac{2\cdot4+3\cdot1}{3\cdot4}=\frac{11}{12}$$

$$\frac{2}{3}\times\frac{1}{4}=\frac{2\cdot4-3\cdot1}{3\cdot4}=\frac{5}{12}$$

Unlike Denominators

Visual Model



Skill Examples

1. $\frac{1}{5}+\frac{2}{3}=\frac{1\cdot3+5\cdot2}{5\cdot3}=\frac{13}{15}$
2. $\frac{1}{2}+\frac{1}{4}=\frac{1\cdot4+2\cdot1}{2\cdot4}=\frac{6}{8}=\frac{3}{4}$
3. $\frac{1}{3}-\frac{1}{4}=\frac{1\cdot4-3\cdot1}{3\cdot4}=\frac{1}{12}$
4. $\frac{3}{7}-\frac{2}{5}=\frac{3\cdot5-7\cdot2}{7\cdot5}=\frac{1}{35}$

Application Example

5. You ride your bike $\frac{3}{8}$ mile to the store. Then you ride $\frac{1}{6}$ mile to school. How far do you ride altogether?

$$\frac{3}{8}+\frac{1}{6}=\frac{3\cdot6+8\cdot1}{8\cdot6}=\frac{26}{48}=\frac{13}{24}$$

You ride $\frac{13}{24}$ mile.

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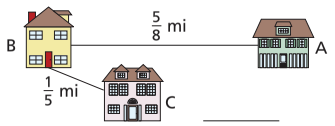
Check your answers at BigIdeasMath.com.

Find the sum or difference. Write your answer in simplified form.

6. $\frac{1}{3}+\frac{1}{8}=$ _____
7. $\frac{2}{3}+\frac{1}{5}=$ _____
8. $\frac{3}{10}+\frac{1}{4}=$ _____
9. $\frac{1}{2}+\frac{2}{5}=$ _____
10. $\frac{3}{7}+\frac{1}{3}=$ _____
11. $\frac{1}{8}+\frac{2}{5}=$ _____
12. $\frac{5}{8}-\frac{1}{3}=$ _____
13. $\frac{5}{6}-\frac{3}{5}=$ _____
14. $\frac{5}{9}-\frac{2}{5}=$ _____
15. $\frac{7}{10}-\frac{1}{4}=$ _____
16. $\frac{3}{5}-\frac{1}{6}=$ _____
17. $\frac{1}{5}-\frac{1}{6}=$ _____

Find the total distance from House A to House B and then to House C.

18. 

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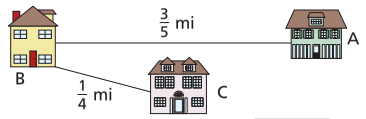
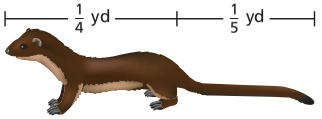
19. 

_____

20. **WEASEL LENGTH** Find the total length of the weasel. _____



21. **IMPROVING YOUR SPEED** You swam at a rate of $\frac{3}{8}$ mile per hour in March. You swam at a rate of $\frac{3}{7}$ mile per hour in April. How much faster did you swim in April? _____

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REVIEW: Multiplying Fractions

Name _____

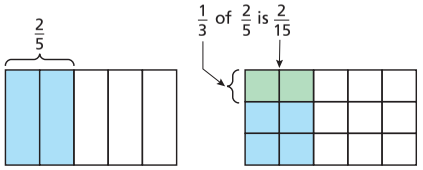
Key Concept and Vocabulary

Multiply numerators.

$$\frac{1}{3} \cdot \frac{2}{5} = \frac{1 \cdot 2}{3 \cdot 5} = \frac{2}{15}$$

Multiply denominators.

Visual Model



Skill Examples

1. $\frac{2}{3} \cdot \frac{1}{4} = \frac{2 \cdot 1}{3 \cdot 4} = \frac{2}{12} = \frac{1}{6}$
2. $\frac{3}{8} \times \frac{2}{9} = \frac{3 \cdot 2}{8 \cdot 9} = \frac{6}{72} = \frac{1}{12}$
3. $\left(\frac{2}{5}\right)\left(\frac{1}{4}\right) = \frac{2 \cdot 1}{5 \cdot 4} = \frac{2}{20} = \frac{1}{10}$
4. $\frac{1}{7} \cdot \frac{3}{5} = \frac{1 \cdot 3}{7 \cdot 5} = \frac{3}{35}$

Application Example

5. A recipe calls for three-fourths cup of flour. You want to make one-half of the recipe. How much flour should you use?

$$\frac{1}{2} \cdot \frac{3}{4} = \frac{1 \cdot 3}{2 \cdot 4} = \frac{3}{8}$$

You should use $\frac{3}{8}$ cup flour.

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Check your answers at BigIdeasMath.com.

Find the product. Write your answer in simplified form.

6. $\frac{1}{3} \cdot \frac{2}{7} =$ _____
7. $\frac{1}{2} \times \frac{1}{4} =$ _____
8. $\frac{1}{10} \cdot \frac{3}{10} =$ _____
9. $\frac{3}{2} \times \frac{2}{5} =$ _____
10. $\frac{3}{8} \times \frac{1}{2} =$ _____
11. $\left(\frac{1}{5}\right)\left(\frac{2}{5}\right) =$ _____
12. $\left(\frac{2}{3}\right)^2 =$ _____
13. $\frac{3}{2} \cdot \frac{2}{3} =$ _____
14. $\left(\frac{3}{1}\right)\left(\frac{1}{3}\right) =$ _____
15. $2 \cdot \frac{1}{4} =$ _____
16. $3 \times \frac{3}{4} =$ _____
17. $\frac{1}{3} \cdot \frac{3}{4} \cdot \frac{4}{5} =$ _____

Find the area of the rectangle or parallelogram.

18. $\frac{1}{2}$ ft, $\frac{1}{2}$ ft — Area = _____
19. $\frac{3}{10}$ cm, $\frac{1}{2}$ cm — Area = _____
20. $\frac{3}{8}$ in., $\frac{5}{8}$ in. — Area = _____
21. $\frac{2}{5}$ m, $\frac{3}{5}$ m — Area = _____

22. **OPEN-ENDED** Find three different pairs of fractions that have the same product.

□ · □ = □ □ · □ = □ □ · □ = □

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REVIEW: Dividing Fractions

Name _____

Key Concept and Vocabulary

$$\frac{2}{3} \div \frac{1}{2} = \frac{2}{3} \cdot \frac{2}{1} = \frac{2 \cdot 2}{3 \cdot 1} = \frac{4}{3}$$

Invert and multiply.

Visual Model

There are 2 "one-thirds" in two-thirds.

$$\frac{2}{3} \div \frac{1}{3} = \frac{2}{3} \cdot \frac{3}{1} = 2$$

Skill Examples

1. $\frac{2}{5} \div \frac{1}{5} = \frac{2}{5} \cdot \frac{5}{1} = \frac{2 \cdot 5}{5 \cdot 1} = 2$
2. $\frac{2}{5} \div 5 = \frac{2}{5} \cdot \frac{1}{5} = \frac{2 \cdot 1}{5 \cdot 5} = \frac{2}{25}$
3. $\frac{9}{4} \div \frac{3}{4} = \frac{9}{4} \cdot \frac{4}{3} = \frac{9 \cdot 4}{4 \cdot 3} = 3$
4. $6 \div \frac{1}{2} = \frac{6}{1} \cdot \frac{2}{1} = \frac{6 \cdot 2}{1 \cdot 1} = 12$

Application Example

5. You drive 25 miles in one-half hour. What is your average rate?

$$25 \div \frac{1}{2} = \frac{25}{1} \cdot \frac{2}{1} = 50 \text{ mi/h} \qquad r = \frac{d}{t}$$

Your average rate is 50 miles per hour.

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Check your answers at BigIdeasMath.com

Find the quotient. Write your answer in simplified form.

6. $\frac{3}{5} \div \frac{1}{5} =$ _____
7. $4 \div \frac{1}{2} =$ _____
8. $\frac{2}{3} \div \frac{1}{6} =$ _____
9. $\frac{1}{6} \div \frac{2}{3} =$ _____
10. $\frac{2}{3} \div 2 =$ _____
11. $\frac{3}{4} \div 4 =$ _____
12. $\frac{3}{7} \div \frac{3}{7} =$ _____
13. $\frac{3}{7} \div \frac{7}{3} =$ _____
14. $5 \div \frac{1}{2} =$ _____
15. $\frac{9}{4} \div \frac{1}{4} =$ _____
16. $\frac{1}{4} \div \frac{1}{2} =$ _____
17. $\frac{3}{11} \div 11 =$ _____

Find the height of the rectangle or parallelogram.

18. ft, $\frac{1}{2}$ ft — Area = $\frac{1}{4}$ ft^2
19. cm, $\frac{2}{5}$ cm — Area = $\frac{2}{25}$ cm^2
20. in., $\frac{3}{8}$ in. — Area = $\frac{3}{16}$ in.^{2}
21. m, $\frac{1}{10}$ m — Area = $\frac{1}{50}$ m^2

22. **SPEED** You drive 15 miles in one-fourth hour. What is your average speed? _____

23. **MAGNETIC TAPE** A refrigerator magnet uses $\frac{5}{8}$ inch of magnetic tape. How many refrigerator magnets can you make with 10 inches of magnetic tape? Explain.

_____

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REVIEW: Simplifying Complex Fractions

Name _____

Key Concept and Vocabulary

A complex fraction is a fraction that contains a fraction in its numerator, denominator, or both. To simplify a complex fraction, divide its numerator by its denominator.

Algebra: $\frac{\frac{a}{b}}{\frac{c}{d}} = \frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \cdot \frac{d}{c}$, where $b, c, d \neq 0$

Numbers: $\frac{\frac{2}{3}}{\frac{5}{6}} = \frac{2}{3} \div \frac{5}{6} = \frac{2}{3} \cdot \frac{6}{5} = \frac{4}{5}$

Skill Examples

1. $\frac{\frac{5}{8}}{4} = \frac{5}{8} \div 4 = \frac{5}{8} \cdot \frac{1}{4} = \frac{5}{32}$

2. $\frac{15}{\frac{9}{10}} = 15 \div \frac{9}{10} = \frac{15}{1} \cdot \frac{10}{9} = \frac{50}{3}$

3. $\frac{\frac{1}{3}}{\frac{5}{7}} = \frac{1}{3} \div \frac{5}{7} = \frac{1}{3} \cdot \frac{7}{5} = \frac{7}{15}$

4. $\frac{\frac{9}{16}}{\frac{3}{8}} = \frac{9}{16} \div \frac{3}{8} = \frac{9}{16} \cdot \frac{8}{3} = \frac{3}{2}$

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com

Simplify the complex fraction.

5. $\frac{\frac{3}{2}}{6} =$ _____

6. $\frac{20}{\frac{4}{5}} =$ _____

7. $\frac{\frac{9}{2}}{\frac{12}{7}} =$ _____

8. $\frac{\frac{7}{10}}{\frac{9}{20}} =$ _____

9. $\frac{\frac{2}{3}}{\frac{16}{27}} =$ _____

10. $\frac{5}{\frac{7}{10}} =$ _____

11. $\frac{\frac{12}{17}}{8} =$ _____

12. $\frac{\frac{3}{14}}{\frac{13}{49}} =$ _____

13. $\frac{\frac{27}{32}}{\frac{7}{8}} =$ _____

14. $\frac{\frac{9}{10}}{3} =$ _____

15. $\frac{6}{\frac{1}{6}} =$ _____

16. $\frac{\frac{4}{5}}{\frac{22}{25}} =$ _____

17. $\frac{24}{\frac{18}{7}} =$ _____

18. $\frac{\frac{1}{4}}{\frac{1}{10}} =$ _____

19. $\frac{\frac{3}{5}}{16} =$ _____

20. $\frac{\frac{16}{21}}{\frac{8}{9}} =$ _____

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REVIEW: Mixed Numbers and Improper Fractions

Name _____

Key Concept and Vocabulary

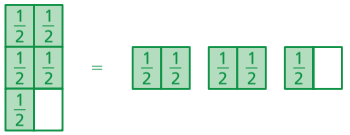
$\frac{5}{2} = 2\frac{1}{2}$

improper fraction

mixed number

Visual Model

$\frac{5}{2} = 2\frac{1}{2}$



Skill Examples

1. $\frac{7}{3} = 2\frac{1}{3}$

2. $\frac{8}{4} = 2$

3. $2\frac{1}{4} = \frac{8}{4} + \frac{1}{4} = \frac{9}{4}$

4. $3\frac{3}{5} = \frac{15}{5} + \frac{3}{5} = \frac{18}{5}$

Application Example

5. During a month, you used 13 half-hours of phone time. How many hours did you use?

13 halves → $\frac{13}{2} = 6\frac{1}{2}$ ← 6 and one-half

∴ You used $6\frac{1}{2}$ hours.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Write the improper fraction as a mixed number.

6. $\frac{4}{3} =$ _____

7. $\frac{3}{2} =$ _____

8. $\frac{8}{3} =$ _____

9. $\frac{9}{6} =$ _____

10. $\frac{7}{4} =$ _____

11. $\frac{28}{3} =$ _____

12. $\frac{19}{4} =$ _____

13. $\frac{11}{2} =$ _____

Write the mixed number as an improper fraction.

14. $2\frac{2}{3} =$ _____

15. $5\frac{1}{4} =$ _____

16. $3\frac{2}{5} =$ _____

17. $1\frac{3}{8} =$ _____

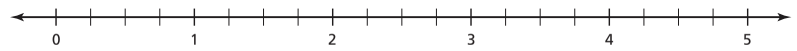
18. Rewrite the sentence using a mixed number. Susan drinks five-fourths of a quart of milk.

_____

19. Rewrite the sentence using an improper fraction. Tom runs for 2 and one quarter hours.

_____

20. **NUMBER LINE** Graph the improper fractions on the number line: $\frac{5}{3}$, $\frac{7}{2}$, and $\frac{13}{3}$.



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REVIEW: Adding and Subtracting Mixed Numbers

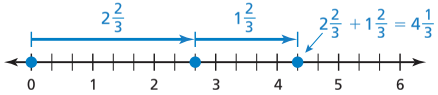
Name _____

Key Concept and Vocabulary

$2\frac{2}{3} + 1\frac{2}{3} = 3\frac{4}{3} = 4\frac{1}{3}$

$5\frac{1}{5} - 1\frac{3}{5} = 4\frac{6}{5} - 1\frac{3}{5} = 3\frac{3}{5}$

Visual Model

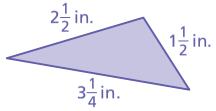


Skill Examples

1. $3\frac{1}{4} + 2\frac{1}{2} = 3\frac{1}{4} + 2\frac{2}{4} = 5\frac{3}{4}$
2. $5\frac{3}{5} + 1\frac{4}{5} = 6\frac{7}{5} = 7\frac{2}{5}$
3. $5\frac{5}{6} - 3\frac{1}{3} = 5\frac{5}{6} - 3\frac{2}{6} = 2\frac{3}{6} = 2\frac{1}{2}$
4. $4\frac{1}{3} - 1\frac{2}{3} = 3\frac{4}{3} - 1\frac{2}{3} = 2\frac{2}{3}$

Application Example

5. Find the perimeter of the triangle.



$2\frac{1}{2} + 1\frac{1}{2} + 3\frac{1}{4} = 7\frac{1}{4}$

∴ The perimeter is $7\frac{1}{4}$ inches.

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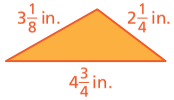
Check your answers at BigIdeasMath.com.

Find the sum or difference. Write your answer in simplified form.

6. $4\frac{1}{4} + 2\frac{1}{4} =$ _____
7. $1\frac{2}{5} + 3\frac{1}{5} =$ _____
8. $5\frac{4}{5} + 3\frac{4}{5} =$ _____
9. $2\frac{2}{3} + 4\frac{1}{6} =$ _____
10. $7\frac{2}{3} + 3\frac{1}{3} =$ _____
11. $5\frac{1}{2} + 5\frac{1}{2} =$ _____
12. $3\frac{1}{4} - 2\frac{1}{2} =$ _____
13. $4\frac{3}{4} - 1\frac{1}{2} =$ _____
14. $8\frac{3}{5} - 5\frac{3}{5} =$ _____
15. $7\frac{1}{6} - 3\frac{1}{3} =$ _____
16. $1\frac{1}{4} - \frac{1}{2} =$ _____
17. $6\frac{3}{4} - 6\frac{1}{2} =$ _____

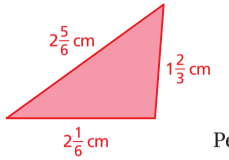
Find the perimeter of the triangle.

18.



Perimeter = _____

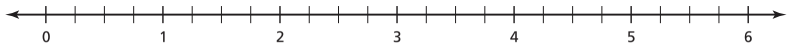
19.



Perimeter = _____

20. **HEIGHT** Sarah was $50\frac{1}{4}$ inches tall when she was 12 years old. She was $48\frac{1}{2}$ inches tall when she was 11 years old. How much did she grow during the year? _____

21. **NUMBER LINE** Show the sum graphically on the number line: $3\frac{1}{4} + 2\frac{1}{2}$.



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REVIEW: Multiplying Mixed Numbers

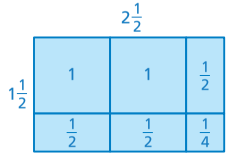
Name _____

Key Concept and Vocabulary

$2\frac{1}{2} \times 1\frac{1}{2} = \frac{5}{2} \times \frac{3}{2} = \frac{15}{4}$

Rewrite as improper fractions.

Visual Model



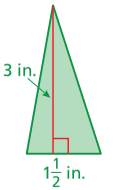
Area $= 2\frac{1}{2} \times 1\frac{1}{2} = \frac{15}{4} = 3\frac{3}{4}$

Skill Examples

1. $3\frac{1}{2} \times 2\frac{1}{3} = \frac{7}{2} \times \frac{7}{3} = \frac{49}{6} = 8\frac{1}{6}$
2. $1\frac{3}{4} \cdot 4\frac{1}{2} = \frac{7}{4} \cdot \frac{9}{2} = \frac{63}{8} = 7\frac{7}{8}$
3. $2\frac{2}{5} \times 1\frac{2}{3} = \frac{12}{5} \times \frac{5}{3} = \frac{60}{15} = 4$
4. $\left(1\frac{1}{2}\right)\left(1\frac{1}{2}\right) = \left(\frac{3}{2}\right)\left(\frac{3}{2}\right) = \frac{9}{4} = 2\frac{1}{4}$

Application Example

5. Find the area of the triangle.



Area $= \frac{1}{2} \cdot 1\frac{1}{2} \cdot 3$

$= \frac{1}{2} \cdot \frac{3}{2} \cdot \frac{3}{1} = \frac{9}{4} = 2\frac{1}{4}$

∴ The area is $2\frac{1}{4}$ square inches.

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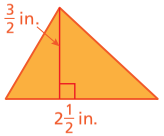
Check your answers at BigIdeasMath.com.

Find the product. Write your answer as a whole number or mixed number in simplified form.

6. $2\frac{1}{3} \times 1\frac{1}{3} =$ _____
7. $4\frac{2}{3} \times 1\frac{1}{2} =$ _____
8. $1\frac{1}{2} \times 3 =$ _____
9. $5\frac{1}{6} \times \frac{1}{3} =$ _____
10. $\frac{3}{4} \cdot 3\frac{1}{2} =$ _____
11. $5 \cdot 4\frac{1}{2} =$ _____
12. $2\frac{1}{7} \cdot \frac{7}{15} =$ _____
13. $1\frac{3}{5} \cdot \frac{3}{8} =$ _____
14. $\left(1\frac{1}{3}\right)^2 =$ _____
15. $\left(1\frac{1}{4}\right)^3 =$ _____
16. $\left(2\frac{1}{2}\right)\left(3\frac{1}{3}\right) =$ _____
17. $\left(3\frac{1}{2}\right)\left(\frac{1}{2}\right)^2 =$ _____

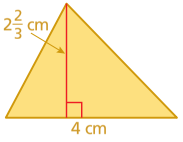
Find the area of the triangle.

18.



Area = _____

19.



Area = _____

20. **RECIPE** Rewrite the recipe so that each item is one-third of the full recipe.

$2\frac{1}{2}$ cups flour
2 tsp baking powder
4 Tbsp butter
$\frac{1}{2}$ tsp salt
$\frac{3}{4}$ cup milk

_____ cups flour
_____ tsp salt
_____ tsp baking powder
_____ cup milk
_____ Tbsp butter

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REVIEW: Dividing Mixed Numbers

Name _____

Key Concept and Vocabulary

Rewrite as improper fractions.

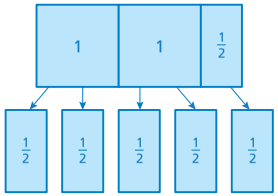
$$2\frac{1}{2} \div 5 = \frac{5}{2} \div \frac{5}{1}$$
$$= \frac{5}{2} \times \frac{1}{5}$$
$$= \frac{1}{2}$$

Visual Model

Divide $2\frac{1}{2}$ into five equal parts.

Each part is $\frac{1}{2}$.

$$2\frac{1}{2} \div 5 = \frac{1}{2}$$



Skill Examples

1. $5 \div 2\frac{1}{2} = \frac{5}{1} \div \frac{5}{2} = \frac{5}{1} \times \frac{2}{5} = 2$
2. $3\frac{3}{4} \div 2\frac{1}{2} = \frac{15}{4} \div \frac{5}{2} = \frac{15}{4} \times \frac{2}{5} = \frac{3}{2} = 1\frac{1}{2}$
3. $4\frac{1}{6} \div 1\frac{2}{3} = \frac{25}{6} \div \frac{5}{3} = \frac{25}{6} \times \frac{3}{5} = \frac{5}{2} = 2\frac{1}{2}$
4. $7\frac{1}{3} \div 11 = \frac{22}{3} \div \frac{11}{1} = \frac{22}{3} \times \frac{1}{11} = \frac{2}{3}$

Application Example

5. You need $2\frac{1}{2}$ inches of ribbon to make a Blue-Ribbon award. How many awards can you make with 35 inches of ribbon?

$$35 \div 2\frac{1}{2} = \frac{35}{1} \div \frac{5}{2} = \frac{35}{1} \times \frac{2}{5} = 14$$

You can make 14 awards.

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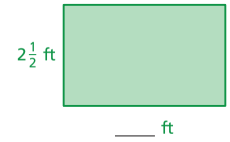
Check your answers at BigIdeasMath.com.

Find the quotient. Write your answer as a whole or mixed number in simplest form.

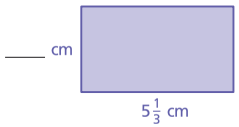
6. $4\frac{1}{2} \div 9 =$ _____
7. $3\frac{3}{7} \div 8 =$ _____
8. $4\frac{2}{3} \div 7 =$ _____
9. $1\frac{7}{9} \div 4 =$ _____
10. $8 \div 1\frac{1}{3} =$ _____
11. $32 \div 3\frac{1}{5} =$ _____
12. $11 \div 2\frac{3}{4} =$ _____
13. $9 \div 1\frac{1}{2} =$ _____
14. $5\frac{1}{2} \div \frac{1}{2} =$ _____
15. $\frac{1}{2} \div 1\frac{1}{2} =$ _____
16. $1\frac{1}{4} \div 1\frac{1}{4} =$ _____
17. $3\frac{1}{2} \div 1\frac{1}{3} =$ _____

Find the missing dimension.

18. $2\frac{1}{2}$ ft, Area = 10 ft², ____ ft



19. ____ cm, Area = 16 cm², $5\frac{1}{3}$ cm



20. **RED RIBBONS** You need $3\frac{1}{2}$ inches of ribbon to make a Red-Ribbon award. How many awards can you make with 35 inches of ribbon? _____

21. **SHIPPING** You are stacking books into a shipping box that is 15 inches high. Each book is $1\frac{1}{4}$ inches thick. How many books can you fit in a stack? _____

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REVIEW: Fractions and Decimals

Name _____

Key Concept and Vocabulary

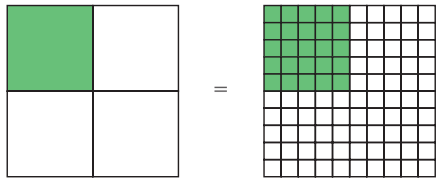
$\frac{1}{10} = 0.1$ $\frac{1}{5} = 0.2$ $\frac{2}{5} = 0.4$

$\frac{1}{4} = 0.25$ $\frac{1}{2} = 0.5$ $\frac{3}{4} = 0.75$

$\frac{1}{8} = 0.125$ $\frac{3}{8} = 0.375$ $\frac{5}{8} = 0.625$

Visual Model

$\frac{1}{4} = 0.25$



Skill Examples

1. $0.6 = \frac{6}{10} = \frac{3}{5}$
2. $\frac{4}{5} = \frac{4 \cdot 2}{5 \cdot 2} = \frac{8}{10} = 0.8$
3. $0.875 = \frac{875}{1000} = \frac{7 \cdot \cancel{125}}{8 \cdot \cancel{125}} = \frac{7}{8}$
4. $\frac{1}{3} = 0.333\ldots = 0.\overline{3}$ $3\overline{)1.0000\ldots}$ $0.3333\ldots$

Application Example

5. You put 16.75 gallons of gas in your car. Write this decimal as a mixed number.

$$16.75 = 16 + 0.75 = 16\frac{3}{4}$$

You put $16\frac{3}{4}$ gallons of gas in your car.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Write the fraction as a decimal.

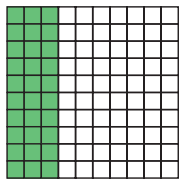
6. $\frac{3}{4} =$ _____
7. $\frac{7}{10} =$ _____
8. $\frac{3}{25} =$ _____
9. $\frac{7}{20} =$ _____
10. $\frac{19}{100} =$ _____
11. $\frac{11}{50} =$ _____
12. $\frac{2}{3} =$ _____
13. $\frac{1}{6} =$ _____

Write the decimal as a fraction.

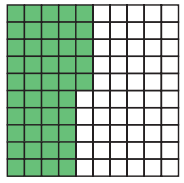
14. $0.4 =$ _____
15. $0.35 =$ _____
16. $0.6 =$ _____
17. $1.5 =$ _____

Write the number represented by the model as a decimal and as a simplified fraction.

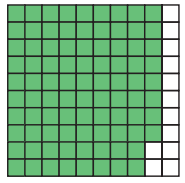
18. _____ = _____



19. _____ = _____



20. _____ = _____



21. **GAS** You put 9.25 gallons of gas in your car. Write this decimal as a mixed number. _____

22. **MULTIPLE FORMS** Write the decimal 0.35 in two ways. One with a denominator of 100 and one with a denominator of 1000. _____

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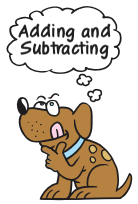
REVIEW: Adding and Subtracting Decimals

Name _____

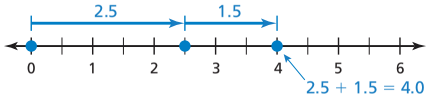
Key Concept and Vocabulary

$$\begin{array}{r} 5.7 \\ +\ 3.36 \\ \hline 9.06 \end{array} \qquad \begin{array}{r} 12.72 \\ -\ 3.84 \\ \hline 8.88 \end{array}$$

Align on decimal point.



Visual Model



Skill Examples

1. $\begin{array}{r} 134.12 \\ +\ 25.485 \\ \hline 159.605 \end{array}$

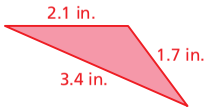
2. $\begin{array}{r} 0.135 \\ +\ 0.14 \\ \hline 0.275 \end{array}$

3. $\begin{array}{r} 32.000 \\ -\ 9.451 \\ \hline 22.549 \end{array}$

4. $\begin{array}{r} 1.405 \\ -\ 0.55 \\ \hline 0.855 \end{array}$

Application Example

5. Find the perimeter of the triangle.



$2.1 + 1.7 + 3.4 = 7.2$

∴ The perimeter is 7.2 inches.

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Check your answers at BigIdeasMath.com.

Find the sum or difference.

6. $4.75 + 3.56 =$ _____

7. $9.0 - 1.507 =$ _____

8. $2.4 + 2.04 =$ _____

9. $112.5 + 24.52 =$ _____

10. $5.7 - 4.81 =$ _____

11. $20 - 12.5 =$ _____

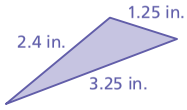
12. $2.3 + 3.4 + 5.9 =$ _____

13. $3.4 + 5.6 - 2.3 =$ _____

14. $10.0 - (4.5 + 2.3) =$ _____

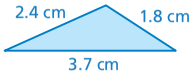
Find the perimeter of the triangle.

15.



Perimeter = _____

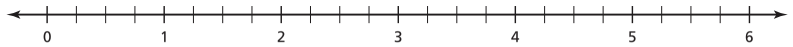
16.



Perimeter = _____

17. **SHOPPING** You take $20 to the store. You buy a magazine for $3.65 and a birthday card for $5.29. How much money do you have left? _____

18. **NUMBER LINE** Show the sum graphically on the number line: $1.75 + 3.5$.



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REVIEW: Multiplying Decimals

Name _____

Key Concept and Vocabulary

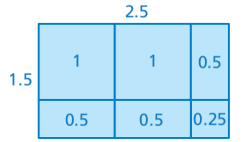
$$\begin{array}{r} 2.1\ 5 \\ \times\ 3.2 \\ \hline 4\ 3\ 0 \\ 6\ 4\ 5 \\ \hline 6.8\ 8\ 0 \end{array}$$

2.1 5 ← 2 decimal places

× 3.2 ← + 1 decimal place

6.8 8 0 ← 3 decimal places

Visual Model



Area = $2.5 \times 1.5 = 3.75$

Skill Examples

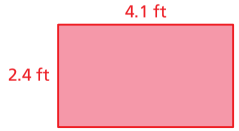
1. $\begin{array}{r} 4\ 3.8 \\ \times\ 1.5 \\ \hline 2\ 1\ 9\ 0 \\ 4\ 3\ 8 \\ \hline 6\ 5.7\ 0 \end{array}$

2. $\begin{array}{r} 0.327 \\ \times\ 24 \\ \hline 1\ 308 \\ 654 \\ \hline 7.848 \end{array}$

3. $\begin{array}{r} 3\ 2.5 \\ \times\ 1.1\ 3 \\ \hline 9\ 7\ 5 \\ 3\ 2\ 5 \\ 3\ 2\ 5 \\ \hline 3\ 6.7\ 2\ 5 \end{array}$

Application Example

4. Find the area of the rectangle.



$2.4 \times 4.1 = 9.84$

∴ The area is 9.84 square feet.

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Check your answers at BigIdeasMath.com.

Find the product.

5. $3.02 \times 5.2 =$ _____

6. $1.75 \times 1 =$ _____

7. $(9.004)(0) =$ _____

8. $(4.05)^2 =$ _____

9. $2.25 \times 4 =$ _____

10. $(100.5)(90) =$ _____

11. $19.4 \times 5.05 =$ _____

12. $(1.2)(1.3)(1.4) =$ _____

13. $115 \times 3.2 =$ _____

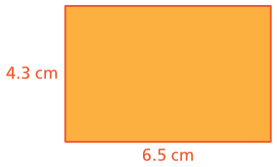
14. $16(0.375) =$ _____

15. $(2.347)(1.8) =$ _____

16. $(1.5)^3 =$ _____

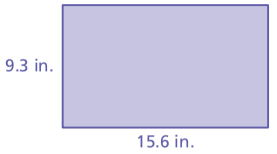
Find the area of the rectangle.

17.



Area = _____

18.



Area = _____

19. **APPLES** Apples cost $3.45 per pound. Find the cost of 2.6 pounds of apples. _____

20. **PEACHES** Peaches cost $4.29 per pound. Find the cost of two and a quarter pounds of peaches. Show your work. _____

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REVIEW: Dividing Decimals

Name _____

Key Concept and Vocabulary

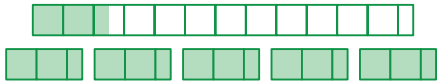
$5.2\overline{)31.408} \rightarrow 52\overline{)314.08}$

$$\begin{array}{r} 6.04 \\ 52\overline{)314.08} \\ 312 \\ \hline 2\ 08 \\ 2\ 08 \\ \hline 0 \end{array}$$

Move decimals 1 place.

Visual Model

$12.5 \div 5 = 2.5$



When you divide 12.5 into 5 equal parts, each part will be 2.5.

Skill Examples

1. $65.3 \div 10 = 6.53$
2. $65.3 \div 100 = 0.653$
3. $65.3 \div 1000 = 0.0653$
4. $65.3 \div 10{,}000 = 0.00653$

Divide by a power of 10 by moving the decimal point.

Application Example

5. A prize of $104.32 is divided equally among four people. How much does each person get?

$104.32 \div 4 = 26.08$

∴ Each person gets $26.08.

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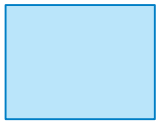
Check your answers at BigIdeasMath.com.

Find the quotient.

6. $5.2 \div 10 =$ _____
7. $73.1 \div 100 =$ _____
8. $1500 \div 1000 =$ _____
9. $18.98 \div 3.65 =$ _____
10. $0.598 \div 2 =$ _____
11. $19.003 \div 1 =$ _____
12. $3.42 \div 0.36 =$ _____
13. $78.4 \div 1.4 =$ _____
14. $1000 \div 12.5 =$ _____
15. $0.45 \div 0.0125 =$ _____
16. $29.45 \div 4.75 =$ _____
17. $19.7 \div 0.1 =$ _____

Find the width of the rectangle.

18. ___ cm; 6.8 cm; Area = 35.36 cm^2



19. ___ in.; 15.2 in.; Area = 129.2 $in.^2$

20. **DRIVING TRIP** You drive 1400 miles in 3.5 days. What is the average number of miles you drive per day? _____

21. **METRIC SYSTEM** There are 2.54 centimeters in one inch. How many inches are there in 51.78 centimeters? Round your answer to the nearest tenth of an inch. _____

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REVIEW: Percents

Name _____

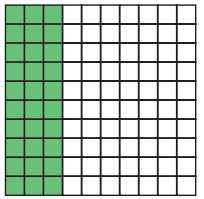
Key Concept and Vocabulary

$30\% = \frac{30}{100}$

30 — per — cent (100)

Visual Model

30% is equal to 30 parts out of 100 parts.



Skill Examples

30% of 10 is 3:

1. 30% of 10 is 3: $\frac{30}{100} \cdot 10 = 3$
2. 25% of 8 is 2: $\frac{25}{100} \cdot 8 = 2$
3. 50% of 24 is 12: $\frac{50}{100} \cdot 24 = 12$
4. 75% of 80 is 60: $\frac{75}{100} \cdot 80 = 60$

Application Example

5. You earn $100,000 and have to pay 40% federal income tax. How much in federal income tax do you pay?

40% of 100,000 is 40,000.

∴ You pay $40,000 in federal income tax.

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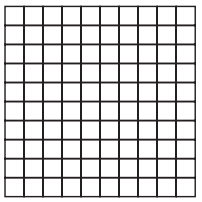
Check your answers at BigIdeasMath.com.

Find the percent.

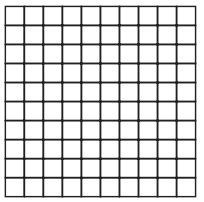
6. 20% of 50 = _____
7. 10% of 80 = _____
8. 1% of 100 = _____
9. 25% of 16 = _____
10. 30% of 40 = _____
11. 100% of 5 = _____
12. 60% of 60 = _____
13. 75% of 40 = _____
14. 25% of 200 = _____
15. 10% of 120 = _____
16. 0% of 10 = _____
17. 50% of 42 = _____

Shade the model to show the given percent.

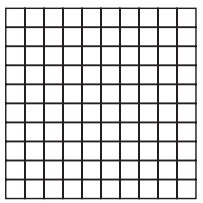
18. 25%



19. 82%



20. 37%



21. **TEST SCORE** You take a test that has 20 questions and you get 80% of the questions correct. How many questions do you get correct? _____

22. **SALES TAX** You buy $50 worth of clothes. The sales tax is 8%. How much sales tax do you pay? _____

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REVIEW: Percents and Fractions

Name _____

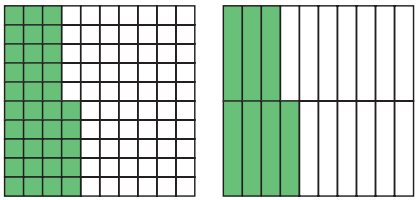
Key Concept and Vocabulary

$$35\% = \frac{35}{100} = \frac{5 \cdot 7}{5 \cdot 20} = \frac{7}{20}$$

Write percent as a fraction in simplest form.

Visual Model

$35\% = \frac{7}{20}$



Skill Examples

1. $40\% = \frac{40}{100} = \frac{20 \cdot 2}{20 \cdot 5} = \frac{2}{5}$
2. $50\% = \frac{50}{100} = \frac{50 \cdot 1}{50 \cdot 2} = \frac{1}{2}$
3. $25\% = \frac{25}{100} = \frac{25 \cdot 1}{25 \cdot 4} = \frac{1}{4}$
4. $5\% = \frac{5}{100} = \frac{5 \cdot 1}{5 \cdot 20} = \frac{1}{20}$

Application Example

5. Your school's softball team won 30% of its games. Did the team win more than one-fourth of its games?

$30\% = \frac{3}{10}$ $\quad \frac{3}{10} > \frac{1}{4}$

∴ Yes, the team won more than one-fourth of its games.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

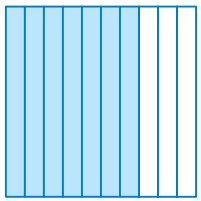
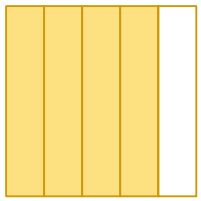
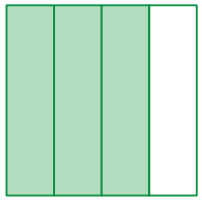
Write the percent as a fraction in simplest form.

6. 20% = _____
7. 45% = _____
8. 7% = _____
9. 32.5% = _____
10. 15% = _____
11. 1% = _____
12. 150% = _____
13. $33\frac{1}{3}\%$ = _____

Write the fraction as a percent.

14. $\frac{3}{20}$ = _____
15. $\frac{6}{5}$ = _____
16. $\frac{5}{8}$ = _____
17. $\frac{3}{5}$ = _____

Write the fraction represented by the model as a percent.

18.  _____
19.  _____
20.  _____

21. **SURVEY** Eighteen out of twenty people in a survey said that vanilla ice cream is their favorite flavor of ice cream. What percent is this? _____

22. **SPANISH LANGUAGE** Twelve of the 40 students in your class can speak Spanish. What percent is this? _____

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REVIEW: Percents and Decimals

Name _____

Key Concept and Vocabulary

$18\% = 0.18$

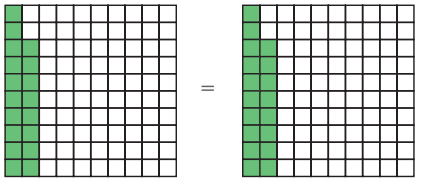
Percent to Decimal: Move decimal point to the left 2 places.

$0.73 = 73\%$

Decimal to Percent: Move decimal point to the right 2 places.

Visual Model

$18\% = 0.18$

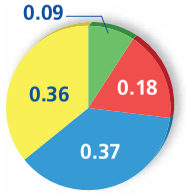


Skill Examples

1. $18\% = 0.18$
2. $145\% = 1.45$
3. $0.005 = 0.5\%$ *(one-half of one percent)*
4. $0.125 = 12.5\%$

Application Example

5. What percent of the circle graph is represented by the yellow region?



$0.36 = 36\%$

∴ The yellow region is 36%.

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Check your answers at BigIdeasMath.com.

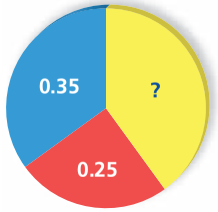
Write the percent as a decimal.

6. 20% = _____
7. 45% = _____
8. 7% = _____
9. 32.5% = _____
10. 15% = _____
11. 1% = _____
12. 150% = _____
13. 0.2% = _____

Write the decimal as a percent.

14. 0.13 = _____
15. 1.4 = _____
16. 0.001 = _____
17. 2.5 = _____

What percent of the circle graph is represented by the yellow region?

18. 

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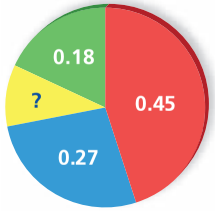
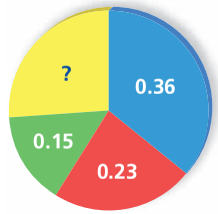
19. 

_____

20. 

_____

21. **BUDGET** You have set aside two twenty-fifths of your monthly budget for clothing. What percent is this? _____

22. **SUMMER SCHOOL** Eighty-seven percent of the students in your class do not plan to attend summer school. What percent of your class plans to attend summer school? _____

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REVIEW: Finding the Percent of a Number

Name _____

Key Concept and Vocabulary

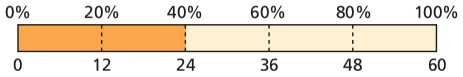
40% of 60 is 24.

$0.4 \times 60 = 24$

$\frac{2}{5} \times 60 = 24$

Write percent as decimal or fraction and multiply.

Visual Model



Skill Examples

1. 30% of 50: $0.3 \times 50 = 15$
2. 45% of 80: $0.45 \times 80 = 36$
3. 110% of 40: $1.1 \times 40 = 44$
4. 25% of 240: $0.25 \times 240 = 60$

Application Example

5. 28% of the 200 people who answered a survey own a dog. How many of the 200 people in the survey own a dog?

$0.28 \times 200 = 56$

∴ 56 of the 200 people own a dog.

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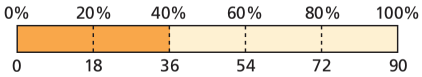
Check your answers at BigIdeasMath.com.

Find the percent of the number.

6. 25% of 40 = _____
7. 20% of 35 = _____
8. 65% of 110 = _____
9. 125% of 20 = _____
10. $33\frac{1}{3}$% of 60 = _____
11. 95% of 400 = _____
12. 200% of 31 = _____
13. 18% of 90 = _____
14. 1% of 800 = _____
15. 60% of 60 = _____
16. 100% of 59 = _____
17. 1000% of 59 = _____

Write the question represented by the model. Then answer the question.

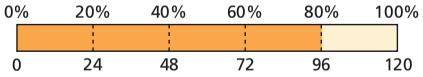
18.



Question: _____

Answer: _____

19.



Question: _____

Answer: _____

20. **ENDANGERED SPECIES** Sixty percent of a species of butterfly died due to loss of habitat. Originally, there were 10,000 butterflies. How many are left? _____

21. **SALES TAX** You buy 4 breakfast sandwiches at $2.59 each, 4 hashbrowns at $1.10 each, and 4 bottles of orange juice at $1.25 each. The sales tax is 6%. Find the total cost of the 4 meals, including sales tax. _____

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REVIEW: Comparing Percents

Name _____

Key Concept and Vocabulary

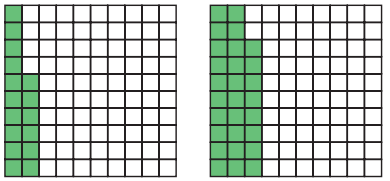
is less than: 16% < 28%

is greater than: 28% > 16%

inequality signs

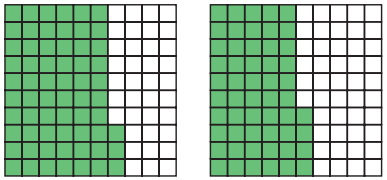
Visual Model

16% < 28%

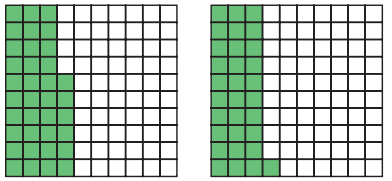


Skill Examples

1. 63% > 54%



2. 36% > 31%



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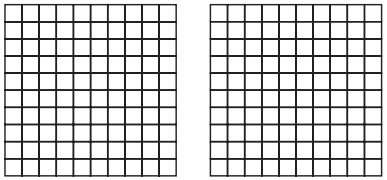
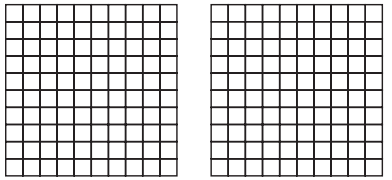
Check your answers at BigIdeasMath.com.

Shade the models to show the two percents. Then compare them using <, >, or =.

3. 47% ☐ 43%



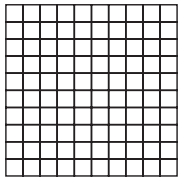
4. 81% ☐ 76%



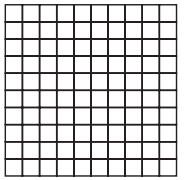
5. **FUNDRAISER** Two classrooms are having a fundraiser. After one week, Classroom A has raised 26% of its goal and Classroom B has raised 29% of its goal. Shade the models to show the two percents. Which classroom has raised a greater percentage of its goal?

_____

Classroom A



Classroom B



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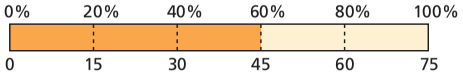
REVIEW: Estimating and Finding a Discount

Name _____

Key Concept and Vocabulary

A discount is a decrease in the original price of an item. To find the discount, write the percent as a decimal or fraction and multiply it by the original price of the item.

Visual Model



The sale price of a $75 necklace with a 60% discount is $75 − $45 = $30.

Application Examples

1. The original price of a book is $18.79. The discount is 20%.

   Estimate: Round 18.79 to 20.
   $0.2 \times 20 = 4$
   The estimate for the discount is $4.

   Actual: $0.2 \times 18.79 \approx 3.76$
   The actual discount is $3.76. The sale price of the book is $18.79 − $3.76 = $15.03.

2. The original price of a pair of in-line skates is $209.99. The discount is 15%.

   Estimate: Round 209.99 to 200.
   $0.15 \times 200 = 30$
   The estimate for the discount is $30.

   Actual: $0.15 \times 209.99 \approx 31.50$
   The actual discount is $31.50. The sale price of the pair of in-line skates is $209.99 − $31.50 = $178.49.

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Check your answers at BigIdeasMath.com.

Estimate the discount. Then find the actual discount and the sale price.

3. **TRUMPET** The original price of a trumpet is $319.29. The discount is 25%.

4. **SHOES** The original price of a pair of shoes is $47.99. The discount is 40%.

5. **LAMP** The original price of a lamp is $17.09. The discount is 15%.

6. **RING** The original price of a ring is $96.75. The discount is 60%.

7. **ELECTRONICS** The original price of a home theater system is $243.89. The discount is 75%.

8. **BASEBALL** The original price of a baseball glove is $26.99. The discount is 30%.

9. **SEWING MACHINE** The original price of a sewing machine is $182.96. The discount is 20%.

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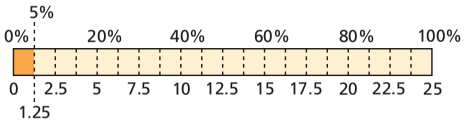
REVIEW: Estimating and Finding a Sales Tax

Name _____

Key Concept and Vocabulary

To find the sales tax on an item, write the percent as a decimal or fraction and multiply it by the price of the item.

Visual Model



Using a sales tax of 5%, the sales tax on a $25 shirt is $1.25.

Application Examples

1. A DVD costs $20 before tax. The sales tax is 7%.

   Estimate: Round 7% to 5%.
   $0.05 \times 20 = 1$
   The estimate for the sales tax is $1.

   Actual: $0.07 \times 20 = 1.4$
   The actual sales tax is $1.40.

2. A bicycle costs $115 before tax. The sales tax is 9%.

   Estimate: Round 9% to 10% and 115 to 120.
   $0.1 \times 120 = 12$
   The estimate for the sales tax is $12.

   Actual: $0.09 \times 115 = 10.35$
   The actual sales tax is $10.35.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Estimate the sales tax. Then find the actual sales tax.

3. **BASEBALL CARDS** The pack of baseball cards costs $3.75 before tax. The sales tax is 4%.

4. **TELEVISION** A television costs $400 before tax. The sales tax is 8%.

5. **MP3 PLAYER** An MP3 player costs $89 before tax. The sales tax is 6%.

6. **COUCH** A couch costs $675 before tax. The sales tax is 5%.

7. **GUITAR** A guitar costs $299 before tax. The sales tax is 9%.

8. **TABLE** A table costs $50 before tax. The sales tax is 4.5%.

9. **JEANS** A pair of jeans costs $39 before tax. The sales tax is 5.5%.

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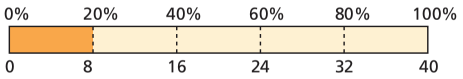
REVIEW: Estimating and Finding a Tip

Name _____

Key Concept and Vocabulary

To find the tip on a food bill at a restaurant, write the percent as a decimal or fraction and multiply it by the cost of the food bill.

Visual Model



A 20% tip on a food bill of $40 is $8.

Application Examples

1. Your food bill at a restaurant is $8.49. You leave a 15% tip.

   Estimate: Round 8.49 to 10.

   $0.15 \times 10 = 1.5$

   ⁘ The estimate for the tip is $1.50.

   Actual: $0.15 \times 8.49 \approx 1.27$

   ⁘ The actual tip is $1.27.

2. Your food bill at a restaurant is $15.83. You leave a 20% tip.

   Estimate: Round 15.83 to 16.

   $0.2 \times 16 = 3.2$

   ⁘ The estimate for the tip is $3.20.

   Actual: $0.2 \times 15.83 \approx 3.17$

   ⁘ The actual tip is $3.17.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Estimate the tip. Then find the actual tip.

3. Food bill: $33.65; Tip: 15% _____
4. Food bill: $44.28; Tip: 20% _____
5. Food bill: $11.17; Tip: 15% _____
6. Food bill: $12.37; Tip: 20% _____
7. Food bill: $23.16; Tip: 15% _____
8. Food bill: $16.21; Tip: 20% _____
9. Food bill: $37.54; Tip: 25% _____
10. Food bill: $25.96; Tip: 20% _____
11. Food bill: $28.93; Tip: 15% _____
12. Food bill: $72.79; Tip: 25% _____
13. Food bill: $19.82; Tip: 23% _____
14. Food bill: $51.56; Tip: 30% _____

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REVIEW: Percents: Finding the Whole

Name _____

Key Concept and Vocabulary

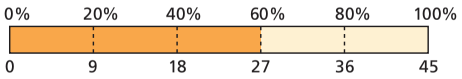
60% of 45 is 27.

$\frac{3}{5} \times 45 = 27$

$27 \div \frac{3}{5} = 45$

Write the percent as a fraction. Then divide the part by the fraction.

Visual Model



27 is 60% of 45.

Skill Examples

1. 30% of what number is 15?

   $15 \div 30\% = 15 \div \frac{3}{10}$

   $= 15 \times \frac{10}{3} = 50$

2. 110% of what number is 88?

   $88 \div 110\% = 88 \div \frac{11}{10}$

   $= 88 \times \frac{10}{11} = 80$

Application Example

3. A basketball player made 9 shots, which were 45% of her attempted shots. How many shots did the basketball player attempt?

   $9 \div 45\% = 9 \div \frac{9}{20}$

   $= 9 \times \frac{20}{9}$

   $= 20$

   ⁘ The basketball player attempted 20 shots.

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Check your answers at BigIdeasMath.com.

Find the whole.

4. 25% of what number is 29? _____
5. 85% of what number is 68? _____
6. 16% of what number is 36? _____
7. 55% of what number is 77? _____
8. 4% of what number is 40? _____
9. 155% of what number is 403? _____
10. **PLAY** Of the students who auditioned for a play, 20% got a part. There are 12 students in the play. How many students auditioned for a part in the play? _____
11. **HOMEWORK** You have completed 15 questions of your English homework, which is 60%. How many English questions were assigned for homework? _____

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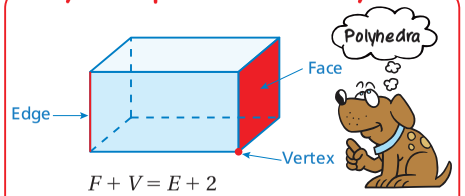
REVIEW: Faces, Edges, and Vertices

Name _____

Key Concept and Vocabulary

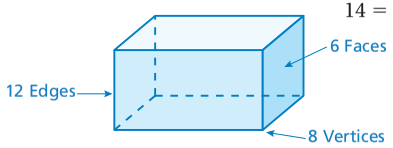


$F + V = E + 2$

Visual Model

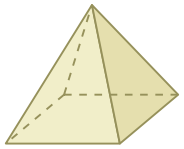
Rectangular Prism

$F + V = E + 2$
$6 + 8 = 12 + 2$
$14 = 14$ ✓



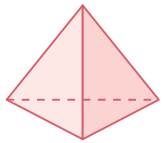
Skill Examples

1.



$F + V = E + 2$
$5 + 5 = 8 + 2$

2.



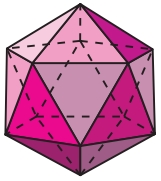
$F + V = E + 2$
$4 + 4 = 6 + 2$

Application Example

3. How many vertices does an icosahedron have?

$F + V = E + 2$
$20 + V = 30 + 2$
$V = 12$

∴ It has 12 vertices.



$F = 20$
$E = 30$

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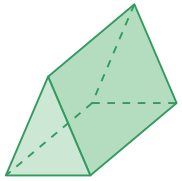
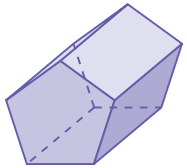
Find the number of faces, edges, and vertices.

4. Triangular Prism



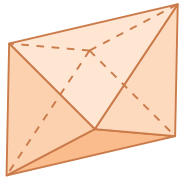
$F =$ ___, $E =$ ___, $V =$ ___

5. Pentagonal Prism



$F =$ ___, $E =$ ___, $V =$ ___

6. Octahedron



$F =$ ___, $E =$ ___, $V =$ ___

Find the missing number of faces, edges, or vertices.

7. Dodecahedron

$F = 12, E = 30, V =$ ___

8. Icosidodecahedron

$F =$ ___, $E = 60, V = 30$

9. Octagonal Prism

$F = 10, E =$ ___, $V = 16$

10. **SOCCER BALL** A soccer ball has the shape of a truncated icosahedron. It has 32 faces and 90 edges.

a. How many vertices does it have? _____

b. The vertices of an icosahedron are cut off to form the pentagons and hexagons seen on the soccer ball. How many of the faces are pentagons? _____

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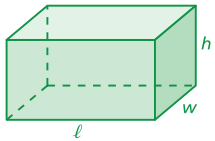
REVIEW: Surface Areas of Prisms

Name _____

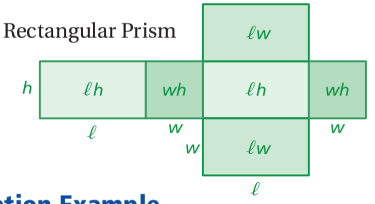
Key Concept and Vocabulary



$S = 2\ell w + 2\ell h + 2wh$

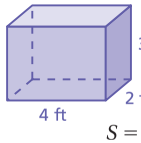
Visual Model

Net for a Rectangular Prism



Skill Example

1.



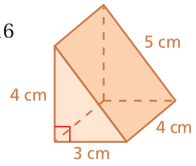
$S = 2(4 \cdot 2) + 2(4 \cdot 3) + 2(2 \cdot 3)$
$= 16 + 24 + 12$
$= 52 \text{ ft}^2$

Application Example

2. Find the surface area of the block.

$S = 2\left(\frac{1}{2} \cdot 3 \cdot 4\right) + 4 \cdot 5 + 3 \cdot 4 + 4 \cdot 4$
$= 12 + 20 + 12 + 16$
$= 60 \text{ cm}^2$

∴ The area is 60 cm^2.



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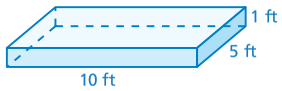
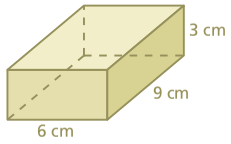
Find the surface area of the prism.

3. Rectangular Prism



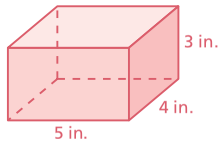
$S =$ _____

4. Rectangular Prism



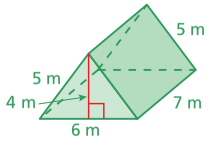
$S =$ _____

5. Rectangular Prism



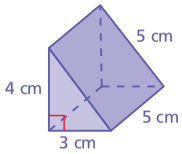
$S =$ _____

6. Triangular Prism



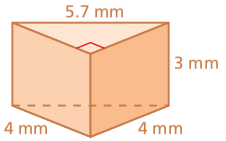
$S =$ _____

7. Triangular Prism



$S =$ _____

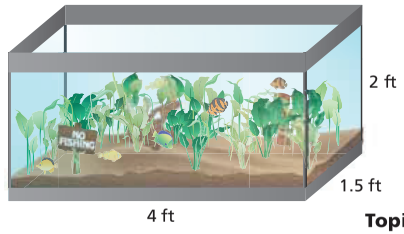
8. Triangular Prism



$S =$ _____

9. **AQUARIUM** How much glass is used to make the four sides of the aquarium? _____

10. **AQUARIUM** How much glass is used to make the base of the aquarium? _____



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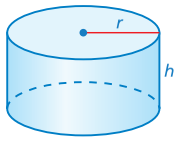
REVIEW: Surface Areas of Cylinders

Name _____

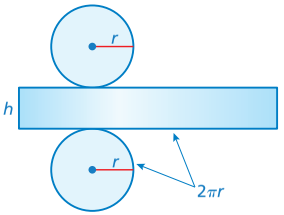
Key Concept and Vocabulary



$S = 2\pi r^2 + 2\pi rh$

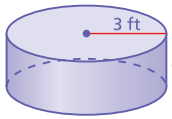
Visual Model

Net for a Circular Cylinder



Skill Example

1.



$S = 2\pi \cdot 3^2 + 2\pi \cdot 3 \cdot 2$
$= 18\pi + 12\pi$
$= 30\pi \text{ ft}^2$

Application Example

2. Find the surface area of the soup can.

$S = 2\pi \cdot 1.5^2 + 2\pi \cdot 1.5 \cdot 5$
$= 4.5\pi + 15\pi$
$= 19.5\pi \text{ in.}^2$

∴ The area is 19.5π square inches.

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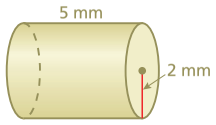
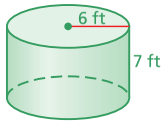
Find the surface area of the circular cylinder.

3. Circular Cylinder



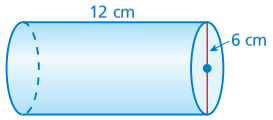
$S =$ _____

4. Circular Cylinder



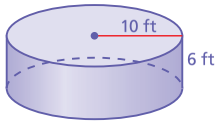
$S =$ _____

5. Circular Cylinder



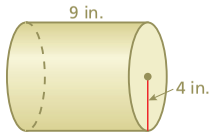
$S =$ _____

6. Circular Cylinder



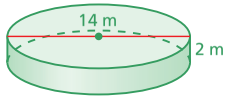
$S =$ _____

7. Circular Cylinder



$S =$ _____

8. Circular Cylinder



$S =$ _____

9. **OIL TANKER TRUCK** The truck's tank is a stainless steel cylinder. How many square feet of stainless steel are needed to make the tank? _____

10. **OIL TANKER TRUCK** What percent of the stainless steel in the tank is used to make the two ends? _____

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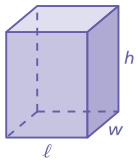
REVIEW: Volumes of Prisms

Name _____

Key Concept and Vocabulary



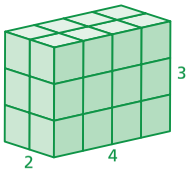
Base

$V = Bh$
$= \ell wh$

Visual Model

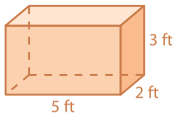
Volume of a Rectangular Prism

$V = 2 \cdot 4 \cdot 3$
$= 24 \text{ units}^3$



Skill Example

1.

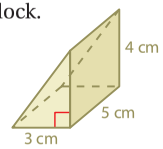


$V = 5 \cdot 2 \cdot 3$
$= 30 \text{ ft}^3$

Application Example

2. Find the volume of the block.

$V = Bh$
$= \left(\frac{1}{2} \cdot 3 \cdot 4\right) \cdot 5$
$= 30 \text{ cm}^3$



∴ The volume is 30 cubic centimeters.

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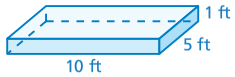
Check your answers at BigIdeasMath.com.

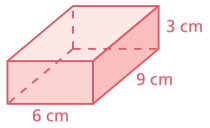
Find the volume of the prism.

3. Rectangular Prism



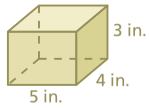
$V =$ _____

4. Rectangular Prism



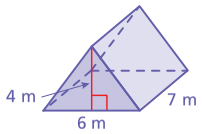
$V =$ _____

5. Rectangular Prism



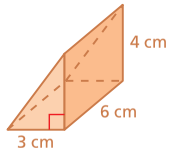
$V =$ _____

6. Triangular Prism



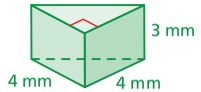
$V =$ _____

7. Triangular Prism



$V =$ _____

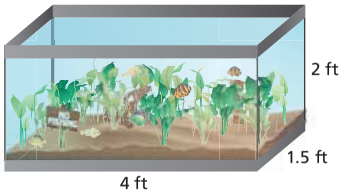
8. Triangular Prism



$V =$ _____

9. **AQUARIUM** How much water is needed to fill the aquarium? _____

10. **AQUARIUM** There are about 7.5 gallons in 1 cubic foot. How many gallons of water does the aquarium hold? _____



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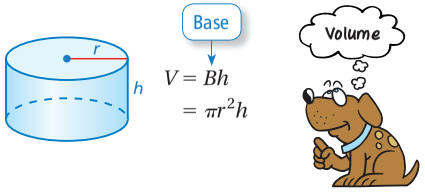
REVIEW: Volumes of Cylinders

Name _____

Key Concept and Vocabulary



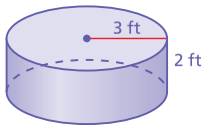
Visual Model

If each coin has a volume of πr^2, then h coins have a volume of

$$V = \pi r^2 h.$$

Skill Example

1.



$V = \pi \cdot 3^2 \cdot 2$

$= 18\pi \text{ ft}^3$

Application Example

2. How much soup is in the can?

$V = \pi \cdot 1.5^2 \cdot 5$

$= 11.25\pi \text{ in.}^3$

∴ There are 11.25π cubic inches of soup.

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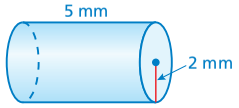
Check your answers at BigIdeasMath.com.

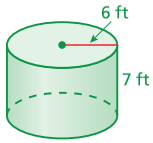
Find the volume of the circular cylinder.

3. Circular Cylinder



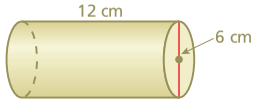
$V =$ _____

4. Circular Cylinder



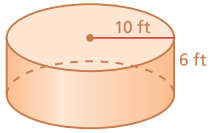
$V =$ _____

5. Circular Cylinder



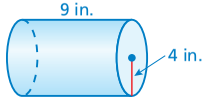
$V =$ _____

6. Circular Cylinder



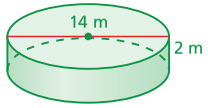
$V =$ _____

7. Circular Cylinder



$V =$ _____

8. Circular Cylinder



$V =$ _____

9. **OIL TANKER TRUCK** The truck's tank is a stainless steel cylinder. How much oil does the tank hold? _____

10. **OIL TANKER TRUCK** There are about 7.5 gallons in 1 cubic foot. How many gallons of oil can the tank hold? _____

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REVIEW: Mean, Median, and Mode

Name _____

Key Concept and Vocabulary

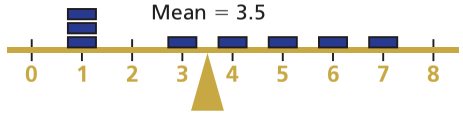
mode = 1 | median = 3.5

1, 1, 1, 3, 4, 5, 6, 7

$$\text{Mean} = \frac{1+1+1+3+4+5+6+7}{8}$$

$= 3.5$

Visual Model



The scale balances at the mean.

Skill Example

1. mode = 1 | median = 4

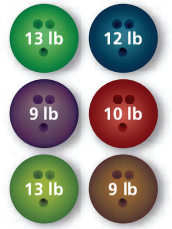
1, 1, 1, 3, 4, 5, 6, 7, 17 (Outlier)

$$\text{Mean} = \frac{1+1+1+3+4+5+6+7+17}{9}$$

$= 5$

Application Example

2. What is the mean weight of the bowling balls?



$13 + 12 + 9 + 10 + 13 + 9 = 66$

$\text{Mean} = \frac{66}{6} = 11$

∴ The mean is 11 pounds.

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Check your answers at BigIdeasMath.com.

Find the mean, median, and mode of the data.

3. 2, 6, 9, 10, 3, 4, 6, 12, 4, 13

Mean = ____, Median = ____, Mode = _____

4. 30, 48, 32, 43, 45, 32

Mean = ____, Median = ____, Mode = _____

5. 18, 12, 25, 18, 17, 19, 29, 20, 13, 18

Mean = ____, Median = ____, Mode = _____

6. 6.8, 6.2, 6.3, 6.8, 5.9, 6.0, 6.1, 5.9

Mean = ____, Median = ____, Mode = _____

7. $-4, 5, 3, -2, 1, 0, -2$

Mean = ____, Median = ____, Mode = _____

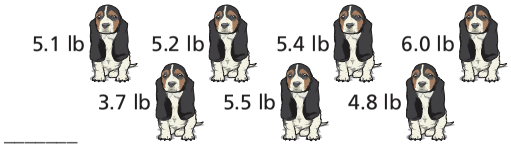
8. 2, 5, 5, 0, 12, 5, 7, 8, 12, 9

Mean = ____, Median = ____, Mode = _____

9. **SALARIES** The weekly salaries of six employees at a fast-food restaurant are \$140, \$220, \$90, \$180, \$140, and \$200. Find the mean, median, and mode of these salaries.

Mean = _____, Median = _____, Mode = _____

10. **PUPPIES** A litter of puppies is 8 weeks old. Find the mean, median, and mode weights of the puppies.



Mean = _____, Median = _____, Mode = _____

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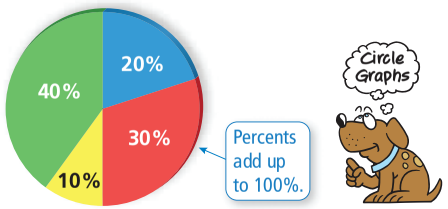
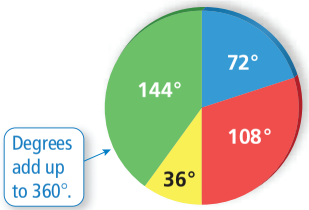
REVIEW: Circle Graphs

Name _____

Key Concept and Vocabulary



Visual Model



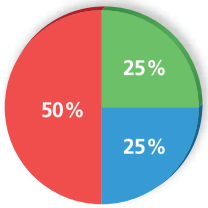
Skill Example

1. Data: 15, 15, 30

   Angles:

   $\frac{15}{60} = 25\% \rightarrow 90°$

   $\frac{30}{60} = 50\% \rightarrow 180°$

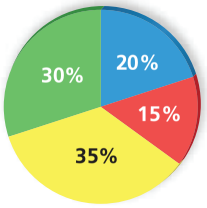


Application Example

2. 200 people were asked their favorite color. How many said blue?

   20% of 200 = 40

   ∴ 40 people said "blue."



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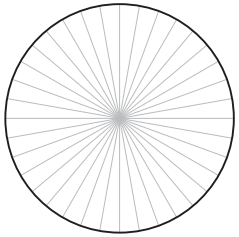
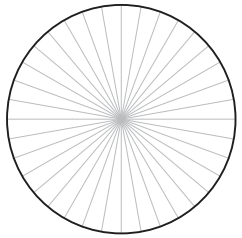
Check your answers at BigIdeasMath.com.

Draw a circle graph for the data. Label each part of the graph.

3. Favorite Pet: dog 9, cat 5, fish 3, bird 1

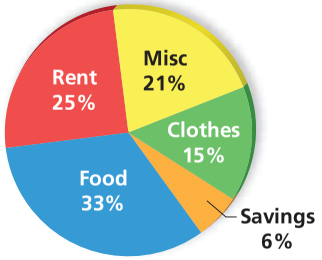


4. Favorite Day: Friday 9, Saturday 12, Sunday 15



BUDGET **A family is making a monthly budget. Its total take-home pay for a month is $2400.**

5. How much is budgeted for food? _____
6. How much is budgeted for miscellaneous? _____
7. How much is budgeted for rent? _____
8. How much is budgeted for clothes? _____
9. How much is budgeted for savings? _____



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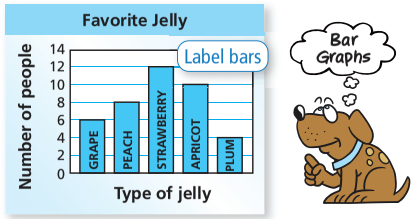
REVIEW: Bar Graphs

Name _____

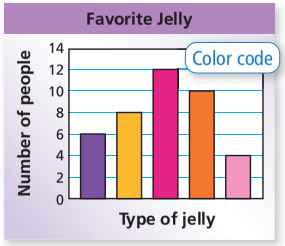
Key Concept and Vocabulary



Visual Model

Favorite Jellies

- Grape 6
- Peach 8
- Strawberry 12
- Apricot 10
- Plum 4



Skill Example

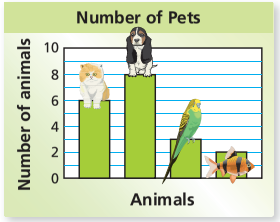
1. **Data**

   Cats 6

   Dogs 8

   Birds 3

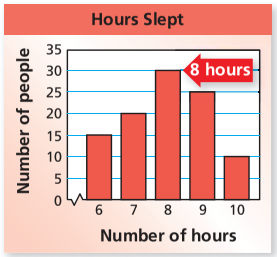
   Fish 2



Application Example

2. How many people said they slept 8 hours a night?

   ∴ 30 people



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Check your answers at BigIdeasMath.com.

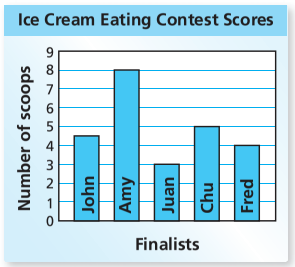
Draw a bar graph for the data. Label each part of the graph.

3. Hours Worked: Mon: 8, Tue: 7, Wed: 10, Thu: 10, Fri: 6

4. Hours Slept: Mon: 8, Tue: 7, Wed: 6, Thu: 9, Fri: 7

CONTEST **A class held an ice cream eating contest. The finalist scores are shown in the bar graph.**

5. How many scoops did John eat? _____
6. How many scoops did Amy eat? _____
7. How many scoops did Juan eat? _____
8. How many scoops did Chu eat? _____
9. How many scoops did Fred eat? _____



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REVIEW: Frequency Tables

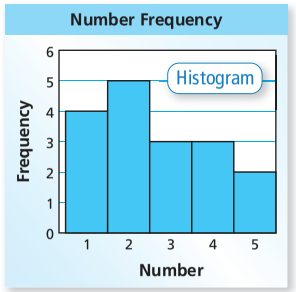
Name _____

Key Concept and Vocabulary

Number	Tally	Frequency
1	IIII	4
2	𝍸	5
3	III	3
4	III	3
5	II	2

Visual Model

A *histogram* shows the frequency of data values in intervals of the same size.



Skill Example

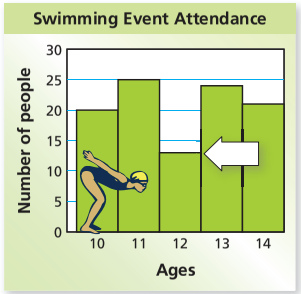
1. **Data:** 4, 6, 3, 6, 4, 5, 5, 6, 3, 5, 6, 3, 5, 6

Number	Tally	Frequency
3	III	3
4	II	2
5	IIII	4
6	𝍸	5

Application Example

2. How many 12-year-olds attended the swimming event?

∴ about 13



PRACTICE MAKES *PURR*-FECT™

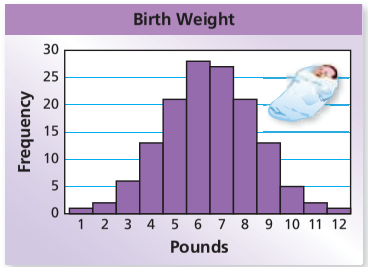
Check your answers at BigIdeasMath.com.

Make a frequency table for the data. Then draw a histogram for the data.

3. **Data (Ages)**
5, 5, 7, 8, 4, 7, 5, 6, 7, 8, 4, 6, 6, 5, 7, 7, 6, 6, 7, 4, 8, 4, 6, 6, 5, 5, 7, 6

Number	Tally	Frequency
4		
5		
6		
7		
8		

BIRTH WEIGHT **The histogram shows the birth weights for babies at a hospital.**



4. How many babies weigh 6 pounds? _____

5. How many weigh 7 pounds? _____

6. How many weigh less than 6 pounds? _____

7. How many weigh 6 or more pounds? _____

8. Approximate the mean birth weight. _____

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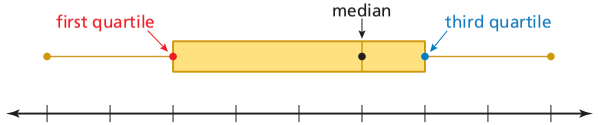
REVIEW: Identifying Outliers

Name _____

Key Concept and Vocabulary



interquartile range (IQR) = third quartile − first quartile

An outlier is any data value that is:

- less than first quartile − 1.5 × IQR
- greater than third quartile + 1.5 × IQR

Skill Example

1. lower half: 10 21 21 23 | upper half: 25 26 28 42

first quartile, 21 | third quartile, 27

IQR = 27 − 21 = 6

21 − 1.5 × 6 = 12 — Because 10 < 12, 10 is an outlier.

27 + 1.5 × 6 = 36 — Because 42 > 36, 42 is an outlier.

Application Example

2. The table shows the heights of seven students. Identify any outlier(s).

Height (in inches)						
52	47	55	81	61	49	59

Order the data: 47, 49, 52, 55, 59, 61, 81

IQR = 61 − 49 = 12

49 − 1.5 × 12 = 31 — 61 + 1.5 × 12 = 79

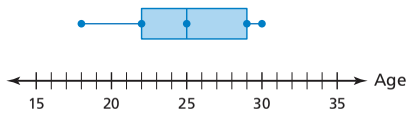
∴ Because 81 > 79, 81 is an outlier. There are no data values less than 31.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

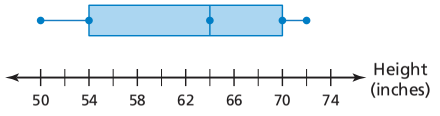
Find the interquartile range.

3.



_____

4.



_____

Identify any outlier(s) of the data set.

5. 8, 10, 13, 13, 14, 16, 27 _____

6. 20, 22, 22, 25, 28, 32, 34, 43 _____

7. 44, 51, 36, 19, 40, 69, 49, 46 _____

8. 76, 72, 64, 93, 80, 78, 96, 75, 70, 72 _____

9. **BASKETBALL** The table shows the free throw percentage of each player on a basketball team. Identify any outlier(s). _____

Free Throw Percentage			
75	72	54	69
82	51	74	76
79	85	75	84

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REVIEW: Evaluating Expressions

Name _____

Key Concept and Vocabulary

variable

Expression: $2x^2 + 3x - 6$

Evaluate when $x = 2$.

$$2(2^2) + 3(2) - 6 = 8 + 6 - 6$$
$$= 8$$

Visual Model

x	$2x + 3$	Value of Expression
1	$2(1) + 3$	5
2	$2(2) + 3$	7
3	$2(3) + 3$	9
4	$2(4) + 3$	11

Skill Examples

1. When $x = 5$, $3x + 4$ is $3(5) + 4 = 19$.
2. When $x = -1$, $5x + 7$ is $5(-1) + 7 = 2$.
3. When $x = 3$, $4x^2$ is $4(3^2) = 36$.
4. When $x = 4$, $x^3 + 1$ is $4^3 + 1 = 65$.

Application Example

5. For a Celsius temperature C the Fahrenheit temperature F is $\frac{9}{5}C + 32$. Find F when $C = 25°$.

$$\frac{9}{5}C + 32 = \frac{9}{5}(25) + 32$$
$$= 45 + 32$$
$$= 77$$

∴ The Fahrenheit temperature is 77°.

PRACTICE MAKES *PURR*-FECT™

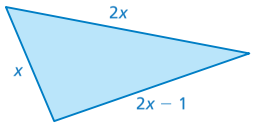
Check your answers at BigIdeasMath.com.

Evaluate the expression.

6. When $x = 2$, $3x - 1 =$ _____.
7. When $x = -1$, $3x + 9 =$ _____.
8. When $x = 4$, $x^2 - 5 =$ _____.
9. When $x = \frac{1}{2}$, $3x^2 =$ _____.
10. When $x = 3.1$, $5x + 0.5 =$ _____.
11. When $x = 0$, $4x^2 + 5 =$ _____.
12. When $x = 10$, $x^2 - 8x + 11 =$ _____.
13. When $x = 2\frac{1}{2}$, $6x + 3 =$ _____.

Evaluate the perimeter when $x = 3$.

14. $P =$ _____



15. $P =$ _____

16. **CARDINAL** The weight of the cardinal (in ounces) is $0.6x + 11$ after its eats x ounces of bird seed. How much does it weigh after it eats 2 ounces of bird seed? _____

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REVIEW: Writing Expressions and Equations

Name _____

Key Concept and Vocabulary

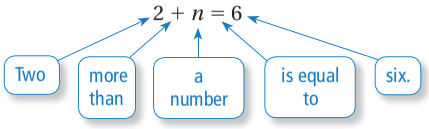
Phrase: Two more than a number

Expression: $2 + n$

Sentence: Two more than a number is equal to six.

Equation: $2 + n = 6$

Visual Model



Skill Examples

1. Five times a number: $5n$
2. Six less than three times a number: $3n - 6$
3. The sum of a number and one: $n + 1$
4. A number divided by three: $n \div 3$

Application Example

5. Write an equation for the following. *"The price of $15 is the wholesale cost plus a markup of fifty percent."*

Let C be the wholesale cost.

50% of C is $0.5C$.

∴ An equation is $15 = C + 0.5C$.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Write the verbal phrase as a mathematical expression.

6. The product of a number and two

_____

7. 10 subtracted from a number

_____

8. 19 less than twice a number

_____

9. The sum of a number and three, divided by four

_____

10. Five times the sum of a number and two

_____

11. Seven less than four times a number

_____

Write the sentence as an equation.

12. Three times a number equals nine.

_____

13. The difference of a number and nine is four.

_____

14. Twelve divided by a number is four.

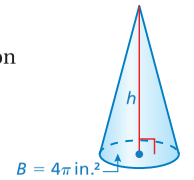
_____

15. The sum of a number and seven is eighteen.

_____

16. The volume of a cone is one-third the area of the base times the height. A cone has a volume of 20π cubic inches. Write an equation that can be used to solve for the height of the cone.

_____



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REVIEW: Simplifyng Expressions

Name _____

Key Concept and Vocabulary

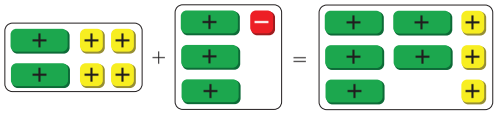
Combine variable terms.

$2x + 4 + 3x - 1 = 5x + 3$

Combine numerical terms.

Visual Model

Algebra Tiles



Skill Examples

1. $2x + 5x = 7x$
2. $1 + n + 4 = n + 5$
3. $(2x + 3) - (x + 2) = x + 1$
4. $2(y - 1) + 3(y + 2) = 5y + 4$

Application Example

5. The original cost of a shirt is x dollars. The shirt is on sale for 30% off. Write a simplifed expression for the sale cost.

$x - 0.3x = 0.7x$

∴ The sale cost is $0.7x$.

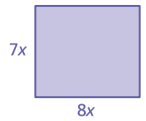
PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Simplify the expression. ***(Remove parentheses and combine like terms.)***

6. $4x + 6x =$ _____
7. $3n + 5 - 2n =$ _____
8. $9x + 3 - 6x - 2 =$ _____
9. $3(x + 2) =$ _____
10. $7m - 2m + 5m =$ _____
11. $2 - (x + 1) =$ _____
12. $(3x + 6) - x =$ _____
13. $5 - (1 - n) =$ _____
14. $(x + 6) - (x + 6) =$ _____
15. $(4x - 2) + 3(x + 1) =$ _____
16. $(5x + 4) - 2(x + 1) =$ _____
17. $5(x + 2) - 2(x + 2) =$ _____

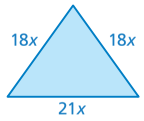
Write a simplified expression for the perimeter of the rectangle or triangle.

18. 

Perimeter = _____

19.

Perimeter = _____

20. 

Perimeter = _____

21. The original cost of a cell phone is x dollars. The phone is on sale for 35% off. Write a simplified expression for the sale cost. _____

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REVIEW: Writing and Graphing Inequalities

Name _____

Key Concept and Vocabulary

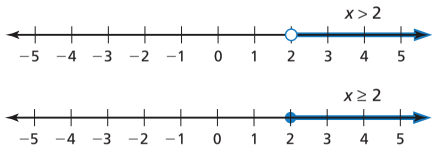
$x > 2$: All numbers greater than 2

$x \geq 2$: All numbers greater than or equal to 2

$x < 2$: All numbers less than 2

$x \leq 2$: All numbers less than or equal to 2

Visual Model



Skill Examples

1. $x > 0$: All positive numbers
2. $x \geq 0$: All nonnegative numbers
3. $x < 0$: All negative numbers
4. $x \leq 0$: All nonpositive numbers

Application Example

5. A sign at a clothing store reads "Savings up to 70%." Let S represent the percent of savings. Write an inequality to describe S.

S can be equal to 70%.

Or S can be less than 70%.

∴ An inequality is $S \leq 70\%$.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Write an inequality for the statement.

6. All numbers that are less than 24

_____

7. All numbers that are at most 3

_____

8. All numbers greater than 10

_____

9. All numbers that are no more than 5

_____

10. All numbers that are at least 11

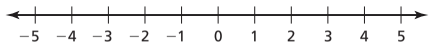
_____

11. All numbers less than or equal to 8

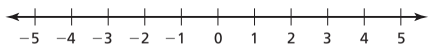
_____

Graph the inequality.

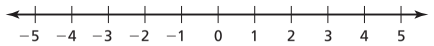
12. $x > -1$



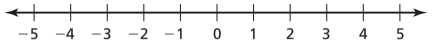
13. $x < 4$



14. $x \leq 3$



15. $x \geq 0$



16. A sign at a shoe store reads "Savings up to 60%." Let P represent the percent of savings. Write an inequality to describe P.

_____

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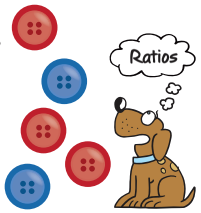
REVIEW: Ratios

Name _____

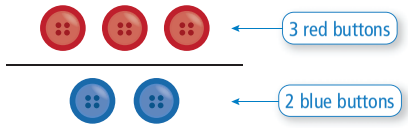
Key Concept and Vocabulary

The ratio of 3 red buttons to 2 blue buttons can be written in three ways:

$\frac{3}{2}$, 3 to 2, or 3 : 2



Visual Model



Skill Examples

1. Ratio of blue buttons to red buttons: $\frac{2}{3}$
2. Ratio of blue buttons to all buttons: $\frac{2}{5}$
3. Ratio of red buttons to all buttons: $\frac{3}{5}$

Application Example

4. Write the ratio of basketballs to soccer balls in three ways.

There are 4 basketballs.

There are 5 soccer balls.

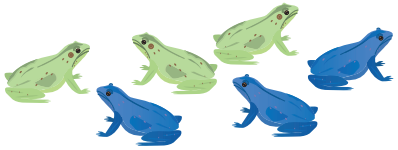
∴ $\frac{4}{5}$, 4 to 5, and 4 : 5

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Write the *simplified* ratio of green objects to blue objects in three ways.

5.



_____

6.

_____

7.

_____

8.

_____

Write the simplified ratio of blue objects to *all* objects in three ways.

9. Frogs in Exercise 5

_____

10. Balloons in Exercise 6

_____

11. Cars in Exericise 7

_____

12. Flowers in Exercise 8

_____

13. **CLASS RATIO** The ratio of boys to girls in a class is 5 to 4. There are 12 girls in the class. How many boys are in the class? _____

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REVIEW: Rates

Name _____

Key Concept and Vocabulary

You pay $12 for 4 hot dogs.

Rate = $\frac{\$12}{4 \text{ hot dogs}}$

Unit Rate = $\frac{\$3}{1 \text{ hot dog}}$

Visual Model

Skill Examples

1. You drive 100 miles in 2 hours. Your unit rate is 50 miles per hour.
2. You earn $40 in 5 hours. Your unit rate is $8 per hour.
3. You save $240 in 6 months. Your unit rate is $40 per month.

Application Example

4. Janice was 44 inches tall when she was 8 years old. She was 52 inches tall when she was 12 years old. What was her unit rate?

She grew 8 inches in 4 years: $\frac{8}{4} = \frac{2}{1}$.

∴ Her unit rate is 2 inches per year.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Write the unit rate in words and as a fraction for each situation.

5. You fly 2000 miles in 4 hours.

Words _____ Fraction _____

6. You pay 15 dollars for 3 pizzas.

Words _____ Fraction _____

7. You pay $4 sales tax on a $50 purchase.

Words _____ Fraction _____

8. You earn $25 for mowing 5 lawns.

Words _____ Fraction _____

Circle the name of the person with the greater unit rate.

9. Maria saves $50 in 4 months.
   Ralph saves $60 in 5 months.

10. John rides his bicycle 36 miles in 3 hours.
    Randy rides his bicycle 30 miles in 2.5 hours.

11. Kim earns $400 for working 40 hours.
    Sam earns $540 for working 45 hours.

12. Arlene scores 450 points on 5 tests.
    Jolene scores 180 points on 2 tests.

Convert the unit rate.

13. $\frac{60 \text{ miles}}{1 \text{ hour}} = \frac{\square \text{ feet}}{1 \text{ second}}$

14. $\frac{2 \text{ gallons}}{1 \text{ hour}} = \frac{\square \text{ cups}}{1 \text{ minute}}$

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REVIEW: Proportions

Name _____

Key Concept and Vocabulary

Proportion: "2 is to 3 as 4 is to 6."

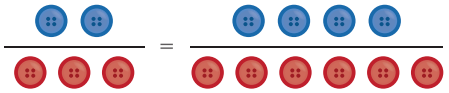
Proportions

$\frac{2}{3} = \frac{4}{6}$

$2 \cdot 6 = 3 \cdot 4$ ← Cross products are equal.

Visual Model

The ratio "2 to 3" is equal to the ratio "4 to 6."



Skill Examples

1. $\frac{3}{5} = \frac{12}{20}$ is a proportion because the cross products are equal.
2. $\frac{1}{7} = \frac{7}{48}$ is *not* a proportion because the cross products are not equal.
3. $\frac{10}{2} = \frac{5}{1}$ is a proportion because the cross products are equal.

Application Example

4. You spend \$5 for 3 tennis balls. Your friend spends \$6.25 for 4 tennis balls. Are the two rates proportional?

$\frac{\$5}{3 \text{ balls}} \stackrel{?}{=} \frac{\$6.25}{4 \text{ balls}}$ $\quad 5(4) \neq 3(6.25)$

∴ The rates are *not* proportional.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Decide whether the statement is a proportion.

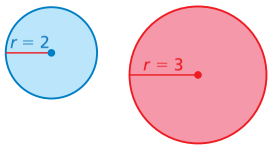
5. $\frac{3}{7} = \frac{6}{14}$ _____
6. $\frac{1}{4} = \frac{4}{1}$ _____
7. $\frac{3}{2} = \frac{9}{4}$ _____
8. $\frac{1.25}{3} = \frac{5}{12}$ _____
9. $\frac{6}{18} = \frac{120}{360}$ _____
10. $\frac{4}{5} = \frac{4+4}{5+5}$ _____

Complete the proportion.

11. $\frac{2}{5} = \frac{\square}{10}$
12. $\frac{1}{6} = \frac{4}{\square}$
13. $\frac{3}{\square} = \frac{9}{24}$

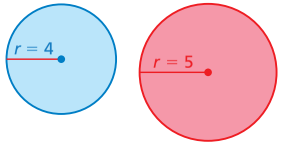
Write the proportion that compares the circumference to the radii of the two circles.

14.



_____

15.



_____

16. **COMPARING RATES** You spend \$20 for 5 T-shirts. Your friend spends \$15 for 3 T-shirts. Are the two rates proportional? _____

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REVIEW: Simple Interest

Name _____

Key Concept and Vocabulary

$I = Prt$

$\$100 = (\$1000)(0.05)(2)$

interest ← principal ← rate as decimal

time in years

Simple Interest

Visual Model

1 month	3 months	4 months
$t = \frac{1}{12}$	$t = \frac{1}{4}$	$t = \frac{1}{3}$

6 months	1 year	2 years
$t = \frac{1}{2}$	$t = 1$	$t = 2$

Skill Examples

1. $P = \$200$, $r = 0.10$, $t = 4$ years
   $I = (200)(0.10)(4) = \$80$
2. $P = \$250$, $r = 0.04$, $t = 0.5$ year
   $I = (250)(0.04)(0.5) = \$5$
3. $P = \$2000$, $r = 0.05$, $t = 20$ years
   $I = (2000)(0.05)(20) = \$2000$

Application Example

4. You deposited \$500 in a savings account for 10 years. The account paid 6% simple interest. How much interest did you earn?

$P = \$500$, $r = 0.06$, $t = 10$ years
$I = (500)(0.06)(10) = \$300$

∴ You earned \$300 in interest.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Find the simple interest.

5. Principal: \$400, Rate: 5%, Time: 3 years
6. Principal: \$100, Rate: 3%, Time: 6 months
7. Principal: \$1000, Rate: 2%, Time: 4 months
8. Principal: \$250, Rate: 10%, Time: 6 months
9. Principal: \$500, Rate: 8%, Time: 9 months
10. Principal: \$600, Rate: 1%, Time: 8 years

In which savings account do you earn more simple interest?

11. **a.** Deposit \$200 at 6% for 3 years.
    b. Deposit \$200 at 8% for 18 months.
12. **a.** Deposit \$1000 at 4% for 5 years.
    b. Deposit \$1000 at 5% for 4 years.

13. **SAVINGS** You deposited \$600 in a savings account for 5 years. The account paid 4% simple interest. How much interest did you earn? _____

14. **LOAN** You borrowed \$1000 for 2 years. You are charged 5% simple interest. How much interest do you owe? _____

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REVIEW: Percents and Proportions

Name _____

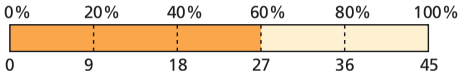
Key Concept and Vocabulary

To represent "a is p percent of w," use a proportion.

part of the whole → $\frac{a}{w} = \frac{p}{100}$ ← percent

whole →

Visual Model



27 is 60% of 45.

Skill Examples

1. $\frac{36}{50} = \frac{p}{100}$

$100 \cdot \frac{36}{50} = 100 \cdot \frac{p}{100}$

$72 = p$

∴ So, 36 is 72% of 50.

2. $\frac{a}{36} = \frac{20}{100}$

$36 \cdot \frac{a}{36} = 36 \cdot \frac{20}{100}$

$a = 7.2$

∴ So, 7.2 is 20% of 36.

Application Example

3. A basketball player makes 45%, or 9 shots, of her attempted shots. How many shots did the basketball player attempt?

$\frac{9}{w} = \frac{45}{100}$

$9 \cdot 100 = w \cdot 45$

$900 = 45w$

$\frac{900}{45} = \frac{45w}{45}$

$20 = w$

∴ The basketball player attempted 20 shots.

PRACTICE MAKES *PURR*-FECT™

Check your answers at BigIdeasMath.com.

Write and solve a proportion to answer the question.

4. 68 is what percent of 80?

_____

5. What number is 25% of 116?

_____

6. 36 is 16% of what number?

_____

7. 48 is what percent of 128?

_____

8. What number is 64% of 40?

_____

9. 77 is 55% of what number?

_____

10. **PLAY** Students are auditioning for a play. Of the 60 students auditioning, 12 will get a part in the play. What percent of the students who audition will get a part in the play?

_____

11. **HOMEWORK** You have completed 60% of your English homework. The assignment has 25 questions. How many questions are left? _____

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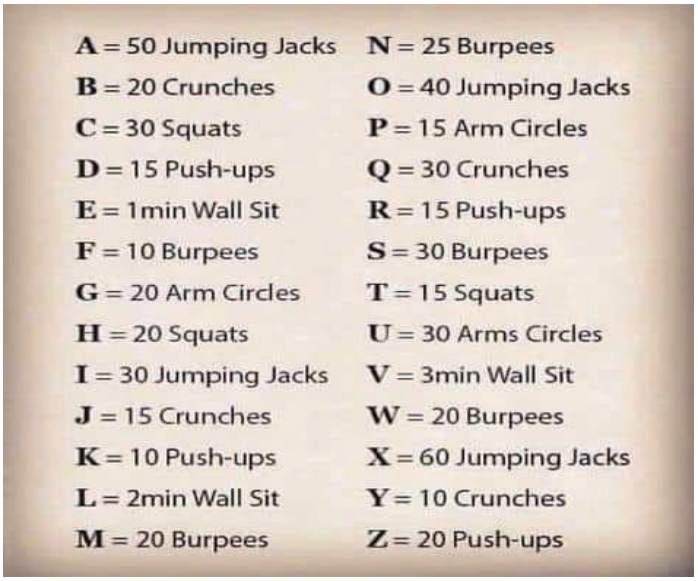
PE VOCABULARY WORK OUT!!!

Using the ABC work out chart… do the exercises that go along with the letters.

Example: BALL B- 20 crunches
A- 50 jumping jacks
L- 2 minute wall sit
L- 2 minute wall sit



Volleyball	Badminton	Health	Exercise	Baseball	Soccer	Nutrition
Basketball	Eclipse Ball	Wellness	Flexibility	Softball	Tennis	Workout
Football	Pickleball	Fitness	Endurance	Cardio	Strength	

******* if you have a device of your own… feel FREE to do some youTube workouts and log them. Here are a few youTube workout channels that we LOVE!!!************

POPSUGAR FITNESS **ZUMBA**

BEACH BODY FOR KIDS IS FREE **JUST DANCE**

Deck of Cards Fitness:

Objective: Collect as many cards as possible in a set time period

Rules:

1. Play by yourself or with as many people that you want to.
2. As a group choose 5 exercises that you would like to use for the game. (example: push ups, sit ups, jumping jacks and squats)
3. Keep the cards in a pile
4. The first person takes a card and does the exercise and the number of repetitions (example: a 6 of hearts=6 jumping jacks; face cards=12)
5. The next player immediately takes a card and does the exercise.
6. Once a player is finished they may grab another card.
7. Play continues until all the cards are gone or time is up (5-10 minutes)
8. Whoever has the most cards wins.

**Different variations of the game could be played...complete the exercise when you have doubles; double cards means double the exercise. Can also be done with 4 of a kind as well.

Cards 1-3 = push ups
Cards 5-8 = sit ups
Cards 9, 10, J = jumping jacks
Cards Q, K, A = squats

Fitness UNO card game

Using the same rules as the deck of cards game...Change it up and use different exercises!!!

Card 1 = Burpees
Card 2 = Jump twist
Card 5 = jumping jacks
Card 8 = ski jumps or slide jumps
Card +2 = draw 2 cards and do those exercises
Card + 4 = draw 4 cards and do the exercises
Skip card = skip around the room
Reverse card = jog backwards around the room
Wild card = 5 push ups

FLIP A COIN FITNESS

Flip a coin and complete the exercises that match. Make sure to do all 10 rounds.

	Heads	**Tails**
Round 1 (cardio)	:60 second jog in place	25 jumping jacks
Round 2 (lower body)	15 squats	25 calf raises
Round 3 (upper body)	20 kneeling push-ups	10 hand release push-ups
Round 4 (cardio)	30 mountain climbers	20 high knees
Round 5 (core)	35 scissor kicks	20 sit-ups
Round 6 (upper body)	20 tricep dips (can use chair)	40 punches
Round 7 (cardio)	12 burpees	15 jumping squats
Round 8 (core)	:60 second plank	15 Russian twists
Round 9 (lower body)	20 forward lunges	15 donkey kicks
Round 10 (cardo)	30 butt kicks	20 jumping jacks

CONNECT 4 FITNESS AT HOME

*Use a marker piece to claim a box.
*Complete the activity in the box
*Your opponent takes their turn
*Attempt to get 4 boxes in a row (horizontal, vertical, diagonal) anywhere on the board.
*You win when you have 4 boxes in a row!

10 burpees	2 run laps around house	20 arm circles	20 shoulder slappers	20 flutter kicks	20 Front to back jumps	10 situps
20 jumping Jacks	15 count straight leg stretch	10 star jumpers	20 karate side kicks	20 High leg kicks	15 crab (belly up) pushups	20 Favorite dance moves
10 count superman	20 high knees	20 Rope jumps with or without rope	20 mountain climbers	2 skipping Laps around house	10 pushups	10 hops on each leg
20 crab kicks	20 bicycles	1 carioca lap around house	20 Up and down on stairs	20 squats	25 feet criss crosses	20 plank knee touches
15 Air punches	1 shuffle lap	20 windmill toe touches	15 walking lunges	15 frog jumps	20 side to side jumps	20 count plank hold
20 Cross country skiers	20 count wall sit	20 bear walks	15 V-up toe touches	10 pushup jacks	15 heel raises	15 pogo jumps

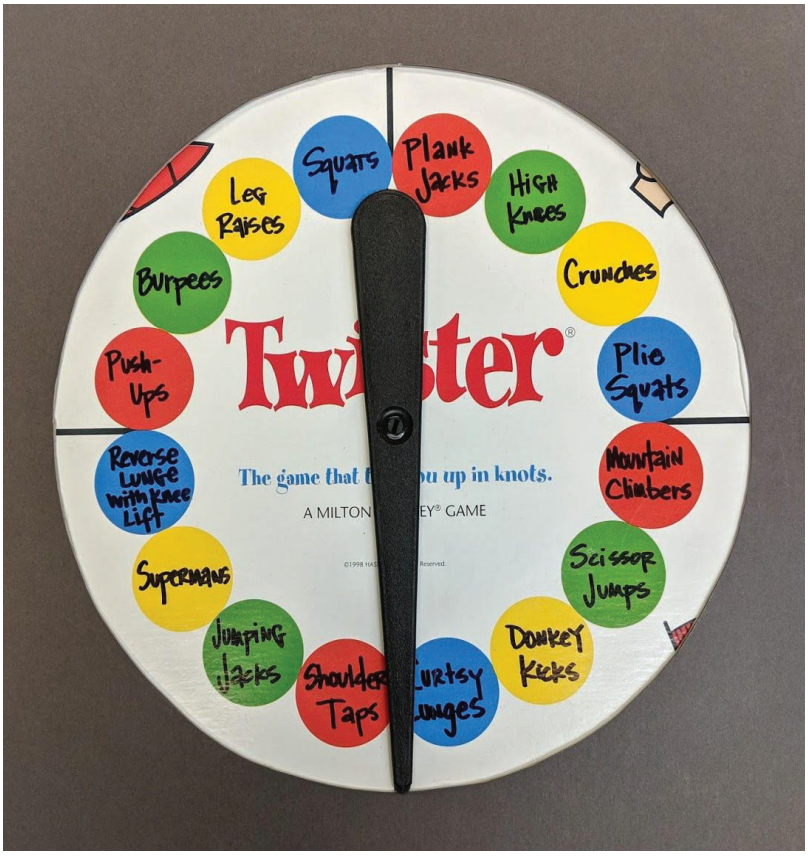
TWISTER FITNESS

*One person rolls 2-3 dice (or pick 3 pieces of paper from a cup - write #s 1-6 on the slips of paper like you would find on a dice)

*One person spins the twister wheel.

*All players perform the exercise spun based on the number rolled.

*Every 3 spins = a jog around the house/room OR jog in place for 30 seconds.



In 100 seconds, I can...

Do _____ sit ups.	Complete _____ push-ups.
Jump on your right foot _____ times.	Jump on your left foot _____ times.
Do _____ bell jumps.	Take _____ steps.
Do _____ scissor jumps.	Do _____ jumping jacks.
Do _____ ski jumps.	Do _____ wall jumps.

THE

NAME

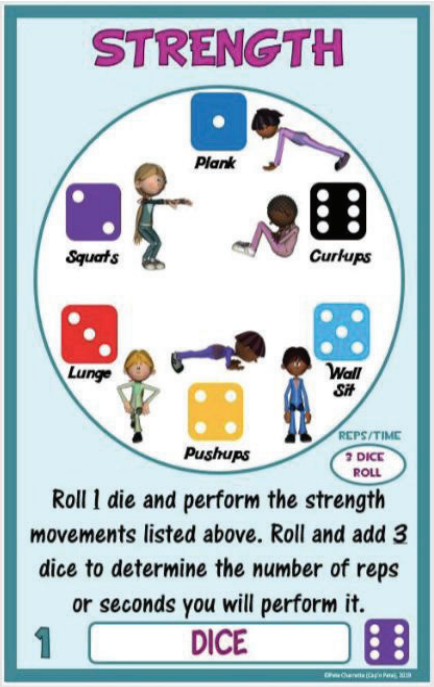
WORKOUT CHALLENGE

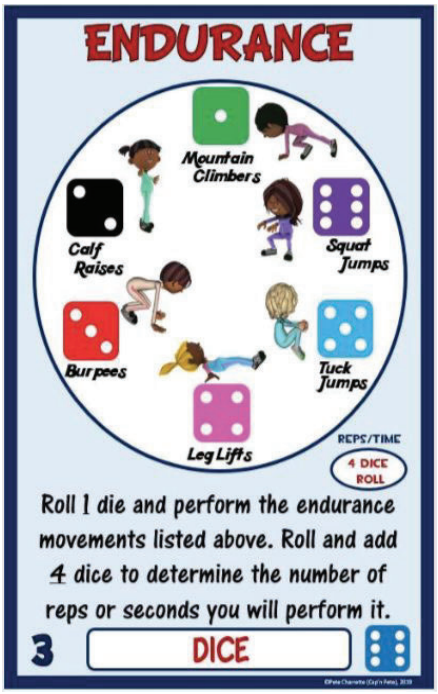
Spell your name to
Make a workout

A - 10 burpees	**J** - 10 tricep dips	**S** - 15 sumo squats
B - 1 minute plank	**K** - 20 push-ups	**T** - 15 burpees
C - 20 high knees	**L** - 1-minute wall sit	**U** - 20 jumping jacks
D - 10 mountain climbers	**M** - 15 squats	**V** - 30 high knees
E - 15 lunges	**N** - 20 burpees	**X** - 2-minute wall sit
F - 20 crunches	**O** - 15 push-ups	**Y** - 15 crunches
G - 30 second raised-leg plank (each leg)	**P** - 10 jump squats	**Z** - 20 burpees
H - 20 mountain climbers	**Q** - 30 second side plank (each side)	
I - 15 squats	**R** - 45-second wall sit	

DICE exercise

If you don't have a die, get 6 scraps of paper and put the numbers 1-6 on them. Then pull them out of a cup!





PE BINGO

**Use a marker piece to mark off the items you completed!

**Challenge someone to play with you (even if they aren't in your house)

**Attempt to get a Bingo in 1 day (or before lunch) - you can set the time limit with whoever you are challenging!

**If playing by yourself, have your parents set the time limit you are aiming for!

10 pushups (X3)	Eat healthy snack	Find a line on the ground and pretend it's a tightrope	Go outside and play for 30 minutes	Skip to the end of your driveway and back
Turn on some music & dance	Run in place (or somewhere safe) for 5 minutes	Hold a plank for 1 minute	Put together a puzzle	Write down 5 health goals I can accomplish by June
Balance on each leg for 30 seconds	Play a game of hopscotch with someone	Free Space	Drink 6-8 cups of water today	25 Jumping Jacks (X2)
Watch an online video about nutrition	3 Random Acts of Kindness	Do wall sits for 30 seconds (X2)	Make up a new game & teach it to someone	Help cook dinner for your family
Actively Stretch for 15 minutes	10 curlups (x3)	Write about your favorite PE game	Jump Rope for 5 minutes	Brush your teeth for 2 minutes

SHAPE Standards S1.E13, E16 & S5.E2

CATCH QUEST

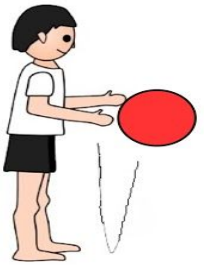
#1

CATCH A BALL WITH BOTH HANDS

#2

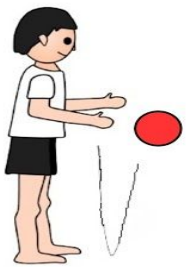
CATCH A BALL WITH ONE HAND

#3



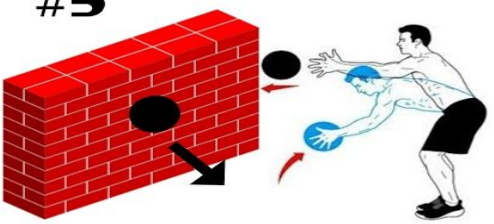
DROP AND CATCH A BALL WITH TWO HANDS

#4



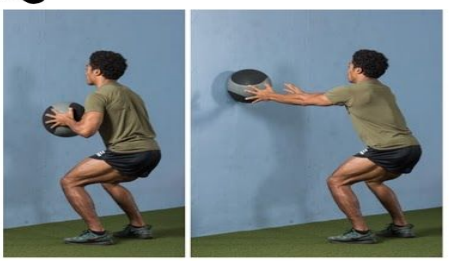
DROP AND CATCH A BALL WITH ONE HAND

#5



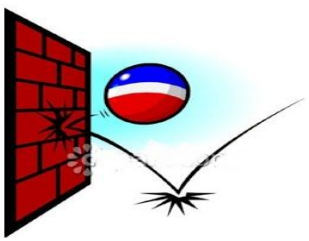
HIT WALL, LET BOUNCE, THEN CATCH

#6



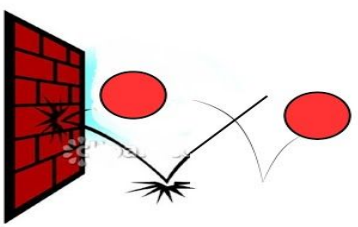
CATCH OFF WALL

#7



BOUNCE OFF FLOOR INTO WALL, THEN CATCH

#8



BOUNCE OFF FLOOR INTO WALL, LET BOUNCE, THEN CATCH

#9

TOSS AND CATCH BEHIND YOUR BACK

Only 1x

PROGRESSION: 5x 10x NEW OBJECT 5X 10x

Created by: Mike Ginicola @PhysEdDepot Inspiration from @RHEPE1

THE EXTRA MILE

DAREBEE WORKOUT

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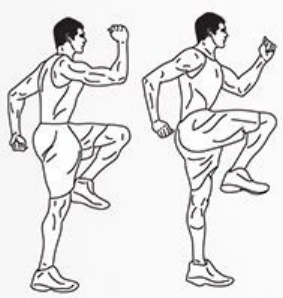
Level I 3 sets

Level II 5 sets

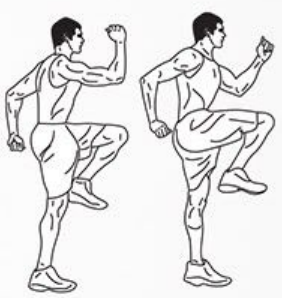
Level III 7 sets

2 minutes rest



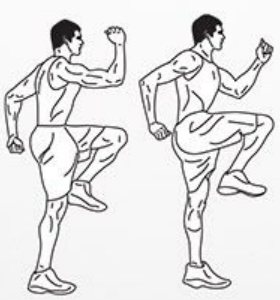
20 march steps

10 calf raises



20 march steps

20 butt kicks



20 march steps

20 high knees

Choir Tic Tac Toe

Week 1 & 2: Complete three activities each week

Write new lyrics to your favorite song	Interview someone at home about their favorite song (questionnaire attached)	Create an instrument out of stuff you find at home and explain to someone how it works
Create body percussion to a song you like	Your choice! Complete a musical activity of your own choosing: _____ _____	Read about Jazz on the attached document and answer the questions, then share what you learned with someone at home
Create a rhythm composition using found sounds at home (pots, chairs, cups, etc.)	Make a list of songs that would be a soundtrack for your life and explain why you picked each	Sing any song to someone at home; keep track of what you perform on the attached performance log

Choir Tic Tac Toe

Week 3 & 4: Complete three activities each week

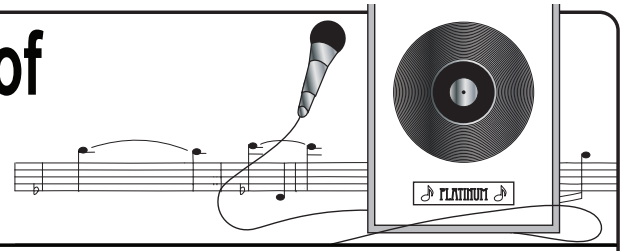
Find 3 things in your house that could be used as a musical instrument, then explain how they work to someone at home	Sing any song to someone at home; keep track of what you perform on the attached performance log	Choose your favorite choir piece from this year. Explain what it's about and why you like it.
Write a paragraph that explains what a song about peace and hope would sound like	Your choice! Complete a musical activity of your own choosing: _____ _____	Read about Hip Hop on the attached document and answer the questions, then share what you learned with someone at home
Create a rhythm accompaniment for a song you like and play it on a chair drum	Choose six songs to make a soundtrack for your life. Describe what each is about and why you chose that song.	Who is the best performer and why? Debate with someone in your house.

Choir Tic Tac Toe

Week 5 & 6: Complete three activities each week

Perform for yourself in the mirror.	Sing any song to someone at home; keep track of what you perform on the attached performance log	Teach someone at home how to stand and breathe for singing
Write a paragraph that explains what a song about war and anger would sound like	Your choice! Complete a musical activity of your own choosing: _____ _____	Read about Hip Hop on the attached document and answer the questions, then share what you learned with someone at home
Write lyrics to a song about anything	Teach someone at home to sing one of your choir pieces from this year	Sit quietly for five minutes and identify all of the sounds you hear. What would a song with these sounds be about? Share with someone at home.

The History of Hip Hop



Directions: Read the passage below and answer the questions that follow.

It is said that hip hop music was born at a birthday party in the Bronx, NY. This popular genre of music started out as party music in the 1970s. It was played by local DJs in the city neighborhoods.

DJs put different pieces of music together. They did this to make new sounds. Then, rapping was added. Rapping is a way of talking over the music with words that rhyme. DJs arranged the beats so that rappers could find a rhythm. Then, the rappers would speak in time with the beat. Rappers often wrote lyrics, or the words of a song, about their own lives.

At first, hip hop served as a response to disco. Disco was a dance music craze in the 1970s. Disco was all about wealth and status. Hip hop emphasized reality and community. Hip hop music and culture became helpful to musicians and listeners. It was a way for them to deal with the difficult things about city life.

Hip hop quickly became an artistic outlet for African Americans. It was a new way to tell stories. From there, hip hop evolved from just a type of music to an entire lifestyle.

Hip hop is an art form that continues to evolve and impact communities today. New artists and new sounds are brought into the genre. The new styles continue to become popular. Hip hop is a genre that is heard and enjoyed all over the world.

1. How are hip hop and disco related?_____

2. Why do you think hip hop is an important music genre for African Americans?_____

3. What are two things that make hip hop unique?_____

4. What is one notable fact about how hip hop music was created?_____

5. In your own words, write a definition for *rapping*._____

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Name _____ Date _____

Jazz Greats: Charlie Parker

Charlie Parker is one of the best-known names in saxophone jazz. He is considered by many to be the greatest jazz saxophonist in history.

Parker was born in 1920 in Kansas City, Missouri. He began playing the saxophone at the age of 11. He said once in an interview that, during his early career, he practiced 15 hours a day for three or four years. In 1939, he moved to New York. At first, he supported himself as a dishwasher, making $9 a week. Then, in 1942, Parker met Dizzy Gillespie, a jazz trumpeter. The two would later become a famous duo.

Parker played with a talented group of young musicians, such as Gillespie and Thelonious Monk, in Harlem after-hours clubs. In 1939, he hit upon a new method of playing, one that would lead him to become one of the creators of bebop, a new form of jazz. Some classic jazz musicians rejected the new sound, but others embraced it, playing jam sessions with the young beboppers and learning their ways.

Parker was a great innovator and created many new musical techniques. A fusion of jazz and classical music that Bird worked on with the string section of a chamber orchestra resulted in the album Charlie Parker with Strings, which was so popular, he recorded a second, longer album of the same name. Parker also created a unique version of the 12-bar blues that he used in his song "Blues for Alice." Many of Parker's innovations are still used by jazz musicians today.

Directions: Answer the questions below. Use text evidence to support your answers.

1. What is the main idea of Jazz Greats: Charlie Parker? Write it in your own words.

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Name _____ Date _____

Jazz Greats: Charlie Parker

2. Choose a quote from the text that supports the following statement, and record it on the lines below.

   Charlie Parker worked hard during his early career.

_____

_____

3. Why did Charlie Parker create a second album named *Charlie Parker with Strings*?

_____

_____

4. Describe what the author means when the text says, "Some classic jazz musicians rejected the new sound, but others embraced it..."

_____

_____

5. What was the result of Charlie Parker's experience playing with a talented group of young musicians in Harlem after-hours clubs?

_____

_____

6. One of Charlie Parker's nicknames is Bird. Why do you think this nickname was chosen for him?

_____

_____

7. What evidence in the passage shows that Parker was influential in jazz music? Include two pieces of evidence.

   a. _____

   _____

   b. _____

   _____

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Middle School Band

Choice Board

Complete two activities per week.

Practice for 20 minutes.	Learn to play Ode to Joy by ear.	Write your own eight-measure rhythm on the back of this sheet.	Teach a family member how to hold your instrument.	Teach a family member how to read the notes on the music staff.
Learn a new scale from your book.	Practice for 10 minutes.	Learn to play Happy Birthday by ear.	Compose your own song using different rhythm patterns.	Perform for yourself in the mirror.
Write and perform your own song.	Play as many songs from the book that you can in 15 minutes.		Practice for 15 minutes.	Play your instrument for your pet for 10 minutes.
Use items around your home to create your own instrument.	Create a rhythm composition using found sounds at home (pots, chairs, cups, etc.)	Create your own body percussion patterns to a song you like.	Pick three songs from your book and play a concert for your family.	Play the Bb major scale five times.
Listen to a song and write a story that fits the music.	Hum one of your favorite songs we've worked on this year.	Practice keeping a steady beat to some of your favorite music.	Create rhythms while listening to music.	Teach a family member how to care for your instrument.

Middle School Orchestra

Choice Board

Complete two activities per week.

Practice for 20 minutes.	Learn to play Ode to Joy by ear.	Write your own eight-measure rhythm on the back of this sheet.	Teach a family member how to hold your instrument.	Teach a family member how to pizzicato.
Teach a family member how to hold the bow.	Practice for 10 minutes.	Learn to play Happy Birthday by ear.	Compose your own song using different rhythm patterns.	Perform for yourself in the mirror.
Write and perform your own song on the D and A string.	Play as many songs from the book that you can in 15 minutes.		Practice for 15 minutes.	Play your instrument for your pet for 10 minutes.
Use items around your home to create your own instrument.	Create a rhythm composition using found sounds at home (pots, chairs, cups, etc.)	Create your own body percussion patterns to a song you like.	Pick three songs from your book and play a concert for your family.	Play the D major scale five times.
Listen to a song and write a story that fits the music.	Hum one of your favorite songs we've worked on this year.	Practice keeping a steady beat to some of your favorite music.	Create rhythms while listening to music.	Teach a family member how to care for your instrument.

Theatre Tic Tac Toe

Choose two activities to complete each week.

Teach someone at home a game from theatre and play for ten minutes	Create a puppet out of things you find in your house, then write a story for that puppet.	Choose two fictional prompts to complete. For extra fun, act them out with someone at home.
Find an object in your house and see how many ways you can use it as a prop (a pen might be a drumstick or a microphone) Be creative!	Sit for 5 minutes and write down every sound you hear. If these sounds were a song, what would it be about? Why?	Rewrite the ending to your favorite movie
Have a conversation with someone entirely through facial expressions, then write what you think it was about	Complete the Create Your Own Superhero Activity	Practice being someone at home's mirror, then switch and repeat. See how creative you can get with your actions!

Theatre Tic Tac Toe

Choose two activities to complete each week!

Teach someone at home a theatre game and play for ten minutes	If COVID-19 was a musical, what would the songs be? Describe your choices and why you picked those songs.	Choose two fictional prompts to complete. For extra fun, act them out with someone at home.
Read a book to your pet or someone at home and act out all of the characters.	Think about your favorite movie or TV show, then write two monologues: one that convinces people that show is the best, and one that convinces them it's the worst. Act it out for fun!	Make a costume out of things you find at home, then describe your character and why you chose those items as part of your costume.
Communicate with someone at home only in gestures for five minutes, then write out the conversation as you perceived it.	Complete the Finish the Thought activity	Create a poster to advertise a play about the world's current events. Include the title, location, time, and appropriate art design.

Blocking

Blocking is... the planning out of the physical action of actors on stage

At some point you will need to block a piece of theatre, whether it's blocking yourself in a monologue, working in pairs for a scene, or perhaps you'll direct or stage manage a play.

Blocking is an important part of the theatrical action, otherwise actors merely stand on stage and spout their lines. How an actor moves, where they move and when they move must be taken into consideration.

Origins of the word "blocking"

In the 19th century, directors often used blocks of wood to represent actors as they planned the movement.

Blocking Tips

- **Blocking should be character-driven** – never have actors move, sit, or stand simply "because." Look at what the character is trying to achieve in the moment. Look at the emotions they are trying to convey or hide and use them to promote the physical action of the character.
- **Blocking should employ a variety of levels.** High, medium, low, jump, sit, lie on the floor.
- **Blocking should employ a variety of pace.** There are many different ways to move about a space: creep, run, slide, crawl, shuffle, glide.
- **Avoid straight lines in your blocking.** Lines are flat on stage. Shapes are dynamic. Think of triangles instead of lines. Always think of the picture being presented to an audience.

Blocking Shorthand

There is a standard shorthand for marking blocking notation on a script:

Stage Right	SR	Go Down Stairs	
Stage Left	SL	Go Up Stairs	
Upstage	US	Sit	
Centre Stage	CS	Stand (Rise)	
Down Stage	DS	Cross Above (Behind)	
Cross	X	Cross Below (In front of)	
Upstage Right	USR	Turn	
Upstage Left	USL	Lie Down	
Downstage Right	DSR	Lean	
Downstage Left	DSL	Jump Up	
Enter	En	Look At	
Exit	Ex	On top of	
Offstage	OS	Stop	
Pick Up	P/U	Chair	
Put Down	P/D	Table	
Kneel	Kn	Push	

Blocking Response Sheet

Use the back if necessary.

Name:_____

Make blocking notation on this monologue using the shorthand found on the previous page. Use the following criteria:

- A defined blocking action at the beginning and the end of the monologue.
- A blocking action based on an emotion.
- Block two different levels and two different paces.

DUNNO from *Tick Talk* by Lindsay Price

I don't know. I don't know. I don't know. I don't know anything. I don't know what I want to be or what do. I don't know why my parents hate me. Everyone hates me. I hate me and I hate that I hate me. I've got a hurt like a fist in my chest and it never goes away. Every morning I wake up and it's there and I don't know what to do about it. Everything is pushing in, and pushing in and I wake up and the hurt in my chest and I can't breathe. And if I don't do something to get this hurt out of my chest.... When do I know what I want? When am I going to be able to explain myself, or be myself without it being wrong? I don't know what's wrong with me. Why does everyone think there's something wrong with me? Why? Why? Why?

Write a paragraph on why you chose the actions and how they are character-driven.

Fictional Prompts Response Sheet **Name:**_____

Use the back if necessary.

1. Write a monologue that takes place on the first night of the zombie apocalypse.
2. Write a scene where two enemies are stuck in an elevator.
3. Write a scene between a person and their inner voice. The inner voice does not think much of the person.
4. Write a monologue in which the character reveals a childhood moment that changed their life.
5. Write a scene between a boyfriend and girlfriend. The girl is mad at the boy, but she can never say the words "I'm mad at you" in the scene.
6. Write a scene between two aliens preparing for the invasion of earth.
7. Write a scene that represents a teen's nightmare the night before an exam that will determine their future.
8. Write a scene between a teen and their 60-year-old self.
9. Write a monologue in which a girl has to convince her brother to lie for her.
10. Write a monologue in which a boy has to convince his sister not to run away.
11. Write a scene that involves a mild mannered accountant, except when it comes to his favourite hobby.
12. Write a scene between a girlfriend and boyfriend. The boy doesn't like that the girl is a bigger football fan than he is.
13. Write a monologue from the perspective of a food item in the refrigerator. What's life like in the fridge? Give the food a defined emotional state in the monologue.
14. Write a scene between two characters who meet for the first time. During the scene they find out they have something in common.
15. Write a scene between two characters at a bus stop. They have stood together at that bus stop every day for three months and today, one decides to talk to the other. It's a big mistake.

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Prepared Exclusively For: Billy Brame - Arrowhead Middle School

Create Your Own Superhero

Here's What To Do

1. Answer the following questions and create your own Superhero.
2. Based on your answers come up with a 1 minute presentation.
3. Hand in your written work at the end of class.
4. You will be presenting your Superhero in the next class.

The Superhero Questionnaire…

1. **The basics:** Human Name, Age, Job (or school grade), favourite food, least favourite food, pet peeve, greatest strength, greatest weakness, and a secret (other than his/her concealed Superhero identity).
2. **The background:** Does your character come from a single parent household? Are they an only child? Orphan? Write five sentences on your character's family background. Who is your character's closest friend? Do they know your character is a superhero?
3. **Origin story:** When/how/why did your character become a superhero? How did they get their powers?
4. **Superhero basics:**
   a) **Name.** Why this name?
   b) **Power.** What can your character do?
   c) **Flaw.** Even Superman was allergic to kryptonite. Give your Superhero a flaw. NOTE: "No Flaw" is not acceptable, flaws are interesting!
   d) **Costume.** Why this costume? What does the costume do?
   e) **Prop.** Is it a car? A ring? A staff?
5. **Personal feelings:** How does your character feel about his/her powers? Like? Dislike? Lucky? Cursed? If your character could go back to being normal, would they? Why or why not?
6. **Outside feelings:** How does the city feel about your character? Trust or Distrust?
7. **In action:** Write down what happened the first time your character used their powers. Write down what happened the most recent time your character used their powers. How has your character changed from the first time to the most recent?

Superhero in Performance

Now that you've created the information for your character, prepare a one minute piece to present for the class. You know your Superhero inside-out. Take that into consideration during your presentation. How would your Superhero stand? Move? Talk? For your presentation think of the one thing your Superhero has to share with an audience. What's the one story that's on his/her mind?

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Finish the Thought Response Sheet **Name:**_____

Use the back if necessary.

Finish and respond to each Thought Starter with your own personal view and opinion.

1. I have always…
2. I remember…
3. It would be interesting if…
4. I have no problem with…
5. I try not to…
6. I have never…
7. I want…
8. I don't want…
9. I would like to…
10. Why does…
11. I hate…
12. I fear…
13. I love…
14. I wish…

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Art Prompts

(middle school)

Follow the drawing prompt for each day. Use the provided paper and whatever drawing materials you have available to draw the daily prompt; add color if you'd like. Take your time, be creative and have fun!

Week 1	1. Favorite animal 2. A cat with wings 3. Two animals turned into one 4. Create a new animal 5. Dinosaur
Week 2	1. Favorite Kansas City Team 2. Favorite place in Kansas City 3. Kansas state flower (sunflower) 4. KU or KState...or neither (choose another) 5. Your second favorite place in Kansas City
Week 3	1. Your family 2. Your bedroom 3. Your home 4. What is out your window 5. Your pet
Week 4	1. A person with donut eyes 2. Your teacher as a zombie 3. Yourself as a pirate 4. Your best friend as an alien 5. Yourself as a robot
Week 5	1. Favorite superhero 2. Favorite comic book character 3. Create your own comic book 4. Create a new villain 5. Superhero sidekick
Week 6	1. Apple + Banana = 2. Carrot + Shoe = 3. Pizza + Monster = 4. Spaghetti + Girl = (think hair) 5. Sandwich + Book =