
Happy New Year and welcome back! We hope each of you had a restful and meaningful time with your family and friends during the winter break. As we transition to Learn from Home for our Face to Face students we just want to remind everyone of the expectations during this time. Students will be required to complete the work packets assigned and turn them in when we return. If you have access to I-Ready we encourage students to work on their lessons in Math and Reading. Our office hours will be from 9-11 each day via Teams.

If you have any questions please feel free to email or message us on Class Dojo.

Thank you and stay safe!

4th Grade Teachers

Ms. Bailey:

baileas@richmond.k12.ga.us

Class Dojo Link-https://www.classdojo.com/invite/?c=CDFCUPC

Ms. Watson:

watsoje@richmond.k12.ga.us

Class Dojo Link-https://www.classdojo.com/invite/?c=CGLL2SS

Ms. Goodman:

goodman@richmond.k12.ga.us

Directions for ELA assignments:

Read the passage then answer the corresponding questions for each assignment. Students may refer back to the passages to complete the assignments.

Links for ELA educational resources:

https://www.youtube.com/watch?v=MHVQ_faQ7rw

https://www.youtube.com/watch?v=LbO3lRXT0ww

Links for Math educational resources:

https://www.youtube.com/watch?v=MZmENadGcK0

https://www.youtube.com/watch?v=zlfv02p7F28

Links for Science educational resources:

https://www.youtube.com/watch?v=xUCYFof8QyA

https://www.youtube.com/watch?v=fvOmaf2GfCY

# MAIN IDEA

Name: _____

Date: _____

Passage #1

RI.4.2

## POWERFUL HURRICANES

① Hurricanes are some of the biggest storms on Earth. They can be up to 600 miles wide and can have wind speeds up to 200 miles per hour! Even though the storms are big, they are usually slow moving and can last for over a week.

② Over the ocean, when warm moist air rises it is replaced by cooler air. The cooler air will then warm and start to rise. This causes large storm clouds to form. These storm clouds will begin to spin into an organized system. If there is enough warm water, the storm clouds and wind speeds will grow causing a hurricane to form.

③ While a hurricane's winds might be strong, the center of the hurricane called the eye is actually quite calm. There are usually very few clouds in the eye, and you can sometimes even see some sunshine! During the eye of a hurricane, people might step outside of their houses to get some fresh air and take a look around. However, don't let this fool you. The most dangerous part of a hurricane is at the edge of the eye, called the eye wall. This is because the highest winds in a hurricane are located in the eye wall. People must hurry inside when they see the eye wall approaching, because winds at the eye wall can reach almost 200 miles per hour!

④ Hurricanes can cause a lot of damage. Most of the damage caused by hurricanes is from storm surge and flooding. A storm surge is when the ocean level rises to the coastline because of the power of a storm. Areas that experience hurricanes can have power outages, large downed trees, and damaged homes.

⑤ Hurricanes are very dangerous storms that should be taken seriously. If you live in an area that experiences hurricanes, it is wise to have a plan so that you can stay safe!

# MAIN IDEA

Name: _____

Date: _____

## Passage #1

RI.4.2

1. What is the main idea of paragraph 2?

_____

_____


Color 2 details that support the main idea of paragraph 2 GREEN.

2. If you were going to make a new title, what would it be?

_____


Color the details that gave you the idea for your new title YELLOW.

3. What is the main idea of the entire passage?

_____

_____

4. Color three key details in the text. Then, explain why those details support the main idea.

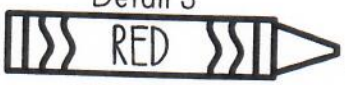
Detail 1


_____

Detail 2


_____

Detail 3




_____

5. In 2-4 sentences, summarize the text.

_____

_____

_____

# MAIN IDEA

Name: _____

Date: _____

Passage #2

RI.4.2

## DIGGING UP THE PAST

① If you ever saw a dinosaur in real-life, what would you do? Even if you think they are scary, dinosaurs were actually amazing creatures! Scientists called paleontologists can still learn so much about dinosaurs by looking at their fossils. Paleontologists are scientists who study fossils of living things.

② Dinosaurs ruled the earth for more than 160 million years. Today, we have been able to identify over 300 different types of dinosaurs with the help of paleontologists. However, scientists believe that there are still more dinosaurs that have yet to be discovered.

③ Some dinosaurs were herbivores, or they only ate plants. Triceratops are an example of an herbivore that fed on shrubs and plants such as ferns or palms. Some dinosaurs were carnivores, which means that they were meat eaters. The most famous carnivore in the dinosaur world was the T-Rex, which had around 50 banana-sized teeth to eat with!

④ Most dinosaurs were very large compared to the reptiles we are used to today. In fact, some dinosaurs were more than 40 feet tall! The tallest dinosaurs were the Dreadnoughtus. They would eat the leaves from tall trees. Some dinosaurs were small, about the size of the lizards we are used to seeing today. These smaller lizards were usually very fast and could catch prey easily.

⑤ Dinosaurs went extinct around 65 million years ago. This means that they no longer exist. Some scientists believe that things such as a massive asteroid or large volcano activity caused the mass extinction. Even though dinosaurs are no longer around, we can still use findings from paleontologists to help understand how these amazing creatures lived in the past.

# MAIN IDEA

Name: _____

Date: _____

## Passage #2

RI.4.2

1. What is the main idea of paragraph 3?

_____

_____


Color 2 details that support the main idea of paragraph 3 PURPLE.

2. What do you think the author wants the readers to know?

_____

_____

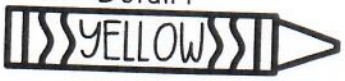
3. What is the main idea of the entire passage?

_____

_____

4. Color three key details in the text. Then, explain why those details support the main idea.

Detail 1




_____

Detail 2


_____

Detail 3


_____

5. In 2-4 sentences, summarize the text.

_____

_____

_____

# MAIN IDEA

Name: _____

Date: _____

Passage #3

RI.4.2

## MORE THAN JUST PETS

① They're cute, cuddly, and oh-so lovable. However, did you know that some dogs are more than just pets? Service dogs have been around for a long time, and they have one very important job: to help humans!

② Service dogs can help humans with many different tasks, such as seeing and hearing. These hard-working dogs undergo hundreds, even thousands of hours of training before becoming official service dogs. They are trained to help their specific person with their specific needs.

③ Special permissions are granted to service dogs, too. Most stores do not allow animals or pets inside. However as long as it is safe to do so, a person with a disability can enter a business, school, bus, or even hospital with their service dog.

④ Not all service dogs are the same. They come in many different shapes, sizes, and colors! In fact, almost any breed of dog can become a service animal if it has the right temperament and is healthy. However, some types of dogs are more suitable for certain jobs. For instance, a large dog with longer legs would make a better mobility (or walking) dog than a smaller one.

⑤ Even though service dogs are great helpers, they are still dogs. They love to play and goof off just like any other dog would. Some like to spend their time off relaxing and cuddling with their owner. Service dogs need all the care that a regular dog would need, too. They need plenty of exercise, food, water, and sleep.

⑥ Service dogs are very special, loyal dogs. If you see one with it's owner, remember all of the hard work and training that they had to go through in order to be such a wonderful helper!

# MAIN IDEA

Name: _____

Date: _____

## Passage #3

RI.4.2

1. What is the main idea of paragraph 5?

_____

_____


Color 2 details that support the main idea of paragraph 2 RED.

2. If you were going to make a new title, what would it be?

_____


Color the details that gave you the idea for your new title GREEN.

3. What is the main idea of the entire passage?

_____

_____

4. Color three key details in the text. Then, explain why those details support the main idea.

Detail 1


_____

Detail 2


_____

Detail 3


_____

5. In 2-4 sentences, summarize the text.

_____

_____

_____

# MAIN IDEA

Name: _____

Date: _____

Passage #4

RI.4.2

## THE REAL MARCO POLO

① If you've ever played the popular game called Marco Polo, you know how fun it is to play with friends. However, did you know that Marco Polo was a real person? He was a very famous Italian explorer!

② Marco Polo was born in Venice, Italy in 1254. He belonged to a family of merchants, or people who buy and sell goods. When he was 17 years old, he traveled to China with his father and uncle to set up a trading business. He loved to explore, so he spent most of his time observing the land and recording what he saw. Emperor Khan was impressed by Marco's findings. He sent Marco on many missions throughout his empire to explore the land and report back to him. Marco spent the next 24 years in China, learning about the different cultures of the land.

③ In 1295, Marco, his father, and his uncle returned to Venice with many riches and treasures. People came from all over to hear Marco speak about his travels in China, and many did not believe everything that he told. So, Marco invited them to dinner one night where he wore traditional Chinese peasant clothes. Once dinner was over, Marco, his father, and his uncle opened their pockets to reveal the many rubies and gems they had received while in Asia. The people couldn't believe their eyes!

④ Marco Polo became so famous, that word got all the way to Christopher Columbus about his amazing travels and the Far East's riches. This inspired Columbus to eventually travel west and discover North America!

⑤ Marco Polo died in January, 1324 at almost 70 years old. He will always be remembered as one of the most famous explorers in history. Next time you play with your friends, see if they know who the true Marco Polo really was!

# MAIN IDEA

Name: _____

Date: _____

## Passage #4

RI.4.2

1. What is the main idea of paragraph 3?

_____

_____


Color 2 details that support the main idea of paragraph 3 YELLOW.

2. Why is "The Real Marco Polo" a good title for this passage?

_____

_____

3. What is the main idea of the entire passage?

_____

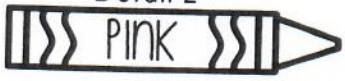
_____

4. Color three key details in the text. Then, explain why those details support the main idea.

Detail 1


_____

Detail 2




_____

Detail 3


_____

5. In 2-4 sentences, summarize the text.

_____

_____

_____

# MAIN IDEA

Name: _____

Date: _____

Passage #5

RI.4.2

## SWEET DREAMS!

① Have you ever had a dream that was so vivid, or life-like, that it seemed real? Dreams are thoughts and images that come into our minds as we sleep each night. Scientists still have no idea how or why our brains make dreams.

② In 1953, REM, or rapid eye movement sleep, was discovered. This gave scientists the ability to study the brain activity of a person asleep. During REM sleep, your eyes move around a lot under your eyelids. REM is a type of sleeping that only occurs for a short time while you sleep. This is when most of your dreams occur!

③ If you've experienced crazy, strange dreams, you're not alone. Most dreams involve things that don't make a lot of sense, like flying trains or purple cows. For centuries, people have been trying to figure out what all our crazy dreams mean!

④ In some ancient cultures, people thought dreams were a place where our spirits travel when we sleep. Some thought that they were messages sent to us about things that would happen in the future. It wasn't until 1899 when Sigmund Freud began researching dreams more closely. He believed that our dreams tell us our deepest desires, or the things we want the most in life.

⑤ Some people report that their dreams actually help them with life's problems. They say they went to bed with a problem in their head, and when they wone up their dreams told them a solution! Still, others believe that dreams really have no purpose at all. Some experts even believe that dreams are just a way for our brains to get rid of memories we don't need.

⑥ Regardless of why or how dreams occur, one thing is for sure- you can always count on your dreams being unusual!

# MAIN IDEA

Name: _____

Date: _____

## Passage #5

RI.4.2

1. What is the main idea of paragraph 2?

_____

_____


Color 2 details that support the main idea of paragraph 2 BLUE.

2. If you were going to make a new title, what would it be?

_____


Color the details that gave you the idea for your new title YELLOW.

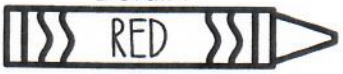
3. What is the main idea of the entire passage?

_____

_____

4. Color three key details in the text. Then, explain why those details support the main idea.

Detail 1




_____

Detail 2


_____

Detail 3


_____

5. In 2-4 sentences, summarize the text.

_____

_____

_____

# Presidential Pets

Name _____ Date _____

**Directions:** Highlight or lightly color the **main idea** with **yellow**. Highlight or underline the **supporting details** with **blue or green**. Then, fill out the graphic organizer below.

Past presidents brought many interesting animals to the white house. President Bush's dogs often played on the White House lawn, but did you know that he also had cows and a cat? One of the strangest pets belonged to the wife of John Quincy Adams. His wife raised silkworms! Herbert Hoover had a pet opossum that lived at the White House. Calvin Coolidge had a pet raccoon named Rebecca who walked on a leash, and Theodore Roosevelt was famous for his snakes, dogs, cats, a badger, birds, horses, and guinea pigs. During World War 1, Woodrow Wilson kept a herd of sheep on the White House lawn. The sheep were used to cut the lawn by eating the grass. Some of the more unusual U.S. presidential pets have been gifts from other world leaders. James Buchanan received a herd of elephants from the King of Thailand, and Martin Van Buren received a pair of tiger cubs! From dogs and cats to snakes and elephants - all of these animals are part of a long history of U.S. presidential pets. What's next? A White House zoo?

Main Idea

Supporting Detail 1

Supporting Detail 2

Supporting Detail 3

# SUPER BRAIN

Name _____ Date _____

**Directions:** Highlight or lightly color the **main idea** with **yellow**. Highlight or underline the **supporting details** with **blue or green**. Then, fill out the graphic organizer below.

Your brain is faster and more powerful than a supercomputer! You carry around a three-pound mass of wrinkly material in your head that controls every single thing you will ever do. Scientists agree that it is the most complex thing ever discovered. Did you know that your brain generates enough electricity to power a light bulb? Your neurons create and send more messages than all the phones in the entire world! While a single neuron generates only a tiny amount of electricity, all your neurons together can generate enough electricity to power a low-wattage light bulb. When you learn, you change the structure of your brain. When you practice your multiplication facts, you are forming new connections along a certain pathway of neurons over and over. These connections enable your brain to form a memory, and memorization of those facts occur! From enabling you to think, learn, create, and feel emotions to controlling every blink, breath, and heartbeat - this fantastic control center is your brain.

Main Idea

Supporting Detail 1

Supporting Detail 2

Supporting Detail 3

Name _____

Reteaching
**12-1**

# Modeling Addition of Fractions

Eight friends want to see a movie. Four of them want to see a comedy. Two want to see an action movie and two want to see a science-fiction movie. What fraction of the group wants to see either a comedy or a science-fiction movie?

You can use a model to add fractions.

Look at the circle. It is divided into eighths, because there are eight people in the group. Each person represents $\frac{1}{8}$ of the group. Four people want to see a comedy. Shade in four of the sections to represent $\frac{4}{8}$. Two people want to see a science-fiction movie. Shade in two more sections to represent $\frac{2}{8}$. Count the number of shaded sections. There are six. So, $\frac{6}{8}$ of the group wants to see either a comedy or a science fiction movie.

$\frac{4}{8} + \frac{2}{8} = \frac{6}{8}$ Write the sum in simplest form. $\frac{6 \div 2}{8 \div 2} = \frac{3}{4}$.

Find each sum. Simplify, if possible.

**1.** $\frac{2}{5} + \frac{1}{5}$ _____ **2.** $\frac{4}{6} + \frac{1}{6}$ _____ **3.** $\frac{3}{8} + \frac{3}{8}$ _____

**4.** $\frac{1}{6} + \frac{1}{6}$ _____ **5.** $\frac{2}{5} + \frac{3}{5}$ _____ **6.** $\frac{2}{10} + \frac{3}{10}$ _____

**7.** $\frac{5}{8} + \frac{3}{8}$ _____ **8.** $\frac{3}{10} + \frac{1}{10}$ _____ **9.** $\frac{3}{4} + \frac{1}{4}$ _____

**10.** $\frac{5}{10} + \frac{4}{10}$ _____ **11.** $\frac{1}{6} + \frac{1}{6} + \frac{1}{6}$ _____ **12.** $\frac{1}{12} + \frac{5}{12} + \frac{2}{12}$ _____

**13. Number Sense** We can express time as a fraction of an hour. For example, 15 minutes is $\frac{1}{4}$ hour. 30 minutes is $\frac{1}{2}$ hour. What fraction of an hour is 45 minutes? _____



Name _____

Practice
**12-1**

# Modeling Addition of Fractions

Find each sum. Simplify if possible. You may use fraction strips.

1. $\frac{1}{4} + \frac{1}{4}$ _____
2. $\frac{2}{5} + \frac{1}{5}$ _____
3. $\frac{3}{12} + \frac{1}{12}$ _____
4. $\frac{2}{6} + \frac{3}{6}$ _____
5. $\frac{1}{2} + \frac{2}{2}$ _____
6. $\frac{2}{8} + \frac{5}{8}$ _____
7. $\frac{3}{8} + \frac{3}{8}$ _____
8. $\frac{3}{10} + \frac{2}{10}$ _____
9. $\frac{1}{6} + \frac{2}{6}$ _____

10. **Draw a Picture** A rectangular garden is divided into 10 equal parts. Draw a picture that shows $\frac{3}{10} + \frac{3}{10} = \frac{6}{10}$, or $\frac{3}{5}$.

11. Each day, Steven walked $\frac{1}{12}$ mile more than the previous day. The first day he walked $\frac{1}{12}$, the second day he walked $\frac{2}{12}$ mile, the third day he walked $\frac{3}{12}$ mile. On which day did the sum of his walks total at least 1 complete mile?

_____

12. **Algebra** Find the missing value in the equation.

$\frac{3}{12} + \frac{1}{12} + \frac{?}{12} = \frac{1}{2}$

**A** 1 **B** 2 **C** 3 **D** 4

13. There are five people sitting around the dinner table. Each person has $\frac{2}{10}$ of a pie on their plate. How much pie is left? Explain.

_____

_____

_____

Name _____

Reteaching
**12-2**

# Adding Fractions with Like Denominators

When you add fractions with like denominators, add the numerators and keep the denominator the same.

Find the sum of $\frac{3}{8} + \frac{1}{8}$

Add the numerators. $3 + 1 = 4$

Keep the denominator the same. $\frac{3}{8} + \frac{1}{8} = \frac{4}{8}$

Is this fraction expressed in simplest form?

**Remember:** a fraction is in simplest form when the greatest common factor (GCF) of the numerator and denominator is 1.

$\frac{4 \div 4}{8 \div 4} = \frac{1}{2}$ $\frac{1}{2}$ is in simplest form, because the GCF of 1 and 2 is 1.

Find each sum. Simplify if possible.

**1.** $\frac{1}{3} + \frac{1}{3}$ _____

**2.** $\frac{3}{10} + \frac{6}{10}$ _____

**3.** $\frac{5}{12} + \frac{2}{12}$ _____

**4.** $\frac{3}{12} + \frac{7}{12}$ _____

**5.** $\frac{5}{10} + \frac{3}{10}$ _____

**6.** $\frac{2}{8} + \frac{4}{8}$ _____

**7.** $\frac{7}{10} + \frac{3}{10}$ _____

**8.** $\frac{1}{8} + \frac{6}{8}$ _____

**9.** $\frac{1}{10} + \frac{5}{10}$ _____

**10.** $\frac{1}{5} + \frac{2}{5} + \frac{2}{5}$ _____

**11.** $\frac{2}{8} + \frac{1}{8} + \frac{4}{8}$ _____

**12.** $\frac{2}{6} + \frac{1}{6}$ _____

**13. Reasoning** There were 10 bowling pins standing before Jared took his first turn. On his first turn, he knocked down 5 pins. On his second turn, he knocked down 3 pins. What fraction of the pins did Jared knock down in his two turns?

_____

Name _____

Practice
**12-2**

# Adding Fractions with Like Denominators

Find each sum. Simplify if possible.

1. $\frac{2}{5} + \frac{2}{5}$ _____

2. $\frac{4}{10} + \frac{5}{10}$ _____

3. $\frac{3}{8} + \frac{1}{8}$ _____

4. $\frac{3}{6} + \frac{2}{6}$ _____

5. $\frac{2}{10} + \frac{7}{10}$ _____

6. $\frac{5}{8} + \frac{2}{8}$ _____

7. $\frac{1}{6} + \frac{2}{6}$ _____

8. $\frac{9}{12} + \frac{2}{12}$ _____

9. $\frac{4}{12} + \frac{6}{12}$ _____

10. $\frac{2}{12} + \frac{9}{12}$ _____

11. $\frac{1}{8} + \frac{3}{8} + \frac{2}{8}$ _____

12. $\frac{2}{10} + \frac{1}{10} + \frac{5}{10}$ _____

13. $\frac{4}{12} + \frac{2}{12} + \frac{1}{12}$ _____

14. $\frac{2}{5} + \frac{1}{5} + \frac{1}{5}$ _____

15. **Geometry** A side of an equilateral triangle is $\frac{2}{8}$ cm long. Draw a picture that shows the triangle. What is the perimeter of the triangle? _____

16. Of the computer games Lynne owns, $\frac{5}{12}$ are sport games and $\frac{3}{12}$ are educational. What fraction of the games are either sport games or educational games?

    **A** $\frac{4}{12}$ **B** $\frac{1}{2}$ **C** $\frac{2}{3}$ **D** $\frac{3}{4}$

17. Rob and Nancy are working on a project. Rob completes $\frac{1}{8}$ of it on Monday and $\frac{3}{8}$ of it on Tuesday. Nancy completes $\frac{2}{8}$ of it on Wednesday and $\frac{1}{8}$ of it on Thursday. Is the project complete? Explain.

_____

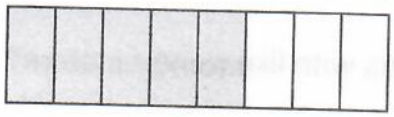
_____

## Guided Practice

**1** How can you write $\frac{5}{8}$ as a sum of unit fractions?

**Step 1** Draw a model to represent $\frac{8}{8}$, or 1 whole.

Shade the model to show $\frac{5}{8}$.



**Step 2** Look at the fraction model.

The unit fraction for the model is _____.

How many unit fractions add up to $\frac{5}{8}$? _____

**THINK**

A unit fraction has 1 as a numerator.

**Step 3** Write $\frac{5}{8}$ as a sum.

_____ + _____ + _____ + _____ + _____ = $\frac{5}{8}$

$\frac{5}{8}$ = _____ + _____ + _____ + _____ + _____

**REMEMBER**

When the denominators are the same, add the numerators to add fractions.

**2** Find the sum.

$\frac{3}{5} + \frac{3}{5}$

**Step 1** The fractions have like denominators.

Add the numerators. Write the sum over the denominator.

$\frac{3}{5} + \frac{3}{5} = \frac{3+3}{5} = \frac{6}{5}$

**Step 2** The sum is an improper fraction.

Write the sum as a mixed number.

$\frac{6}{5} = \frac{5}{5} + \frac{1}{5} =$ _____

**REMEMBER**

A fraction with a numerator greater than the denominator is an improper fraction.

$\frac{3}{5} + \frac{3}{5} =$ _____

## Independent Practice

1. How can you use models to add fractions with like denominators?

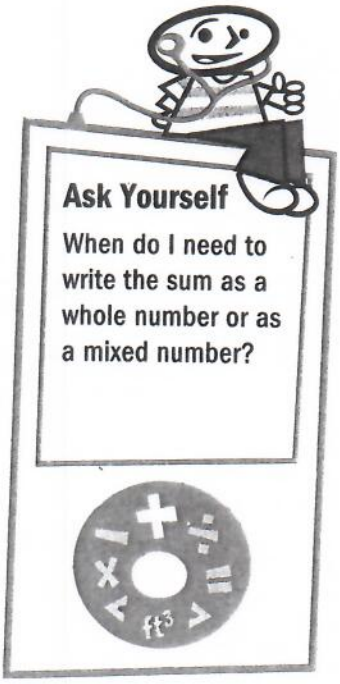
_____

_____

2. How can you use a rule to add fractions with like denominators?

_____

_____




**Draw a model to find each sum.**

3. $\frac{1}{6} + \frac{3}{6} =$ _____

4. $\frac{2}{3} + \frac{2}{3} =$ _____

5. $\frac{3}{10} + \frac{4}{10} =$ _____

6. $\frac{3}{8} + \frac{7}{8} =$ _____

7. Write $\frac{2}{3}$ as a sum of unit fractions. _____

8. Write $\frac{6}{10}$ as a sum of unit fractions. _____

9. Melissa walks $\frac{3}{8}$ mile to school in the morning. She walks the same distance home in the afternoon. How far does Melissa walk to and from school each day?

_____

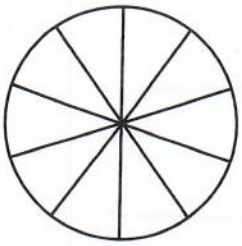
Name _____

Reteaching
**12-3**

# Modeling Subtraction of Fractions

Karla made a pizza and cut it into 10 slices. She ate two slices. What fraction of the pizza is left?

You can use a model to subtract fractions.



Karla's pizza is divided into 10 slices. One way to show this is $\frac{10}{10} = 1$ whole pizza. Karla ate two slices of the pizza. Cross out two of the slices. Count the number of slices left. There are 8 slices or $\frac{8}{10}$ of the pizza left.

$\frac{10}{10} - \frac{2}{10} = \frac{8}{10}$

Write the answer in simplest form, if possible.

$\frac{8 \div 2}{10 \div 2} = \frac{4}{5}$

Use fraction strips or models to subtract. Simplify if possible.

**1.** $\frac{5}{5} - \frac{2}{5} =$ _____ **2.** $\frac{7}{10} - \frac{3}{10} =$ _____ **3.** $\frac{3}{4} - \frac{2}{4} =$ _____

**4.** $\frac{8}{10} - \frac{5}{10} =$ _____ **5.** $\frac{6}{6} - \frac{3}{6} =$ _____ **6.** $\frac{11}{12} - \frac{7}{12} =$ _____

**7.** $\frac{5}{6} - \frac{2}{6} =$ _____ **8.** $\frac{4}{8} - \frac{2}{8} =$ _____ **9.** $\frac{11}{12} - \frac{8}{12} =$ _____

**10.** $\frac{7}{12} - \frac{5}{12} =$ _____ **11.** $\frac{6}{10} - \frac{4}{10} =$ _____ **12.** $\frac{9}{12} - \frac{6}{12} =$ _____

**13. Algebra** Find $x$.

$x - \frac{1}{6} = \frac{1}{6}$ _____

Name _____

Practice
**12-3**

# Modeling Subtraction of Fractions

Use fraction strips to subtract. Simplify if possible.

1. $\frac{11}{12} - \frac{5}{12}$ _____

2. $\frac{6}{12} - \frac{4}{12}$ _____

3. $\frac{1}{2} - \frac{1}{2}$ _____

4. $\frac{4}{6} - \frac{1}{6}$ _____

5. $\frac{5}{6} - \frac{4}{6}$ _____

6. $\frac{9}{10} - \frac{3}{10}$ _____

7. $\frac{5}{8} - \frac{2}{8}$ _____

8. $\frac{7}{8} - \frac{5}{8}$ _____

9. $\frac{3}{4} - \frac{2}{4}$ _____

10. $\frac{3}{5} - \frac{2}{5}$ _____

11. $\frac{2}{5} - \frac{1}{5}$ _____

12. $\frac{9}{12} - \frac{1}{12}$ _____

13. **Algebra** Evaluate $\frac{5}{8} - ? = \frac{3}{8}$. _____

14. **Draw a Diagram** Harriet has $\frac{3}{4}$ tank of gas left in her car. If she needs $\frac{1}{4}$ tank to go to her friend's house and another $\frac{1}{4}$ tank to get back home, does she have enough gas? Draw a diagram and explain your answer.

_____

_____

15. Alicia had $\frac{10}{12}$ yard of fabric. She used $\frac{8}{12}$ for a pillow. How much fabric did she have left? Explain how you found your answer.

_____

_____



Name _____

Reteaching
**12-4**

# Subtracting Fractions with Like Denominators

When subtracting with two fractions having the same denominator, the difference also has the same denominator.

Find $\frac{7}{8} - \frac{5}{8}$.

**Step 1:**
Subtract the numerators.

$7 - 5 = 2$

**Step 2:**
Write the difference over the same denominator.

$\frac{7}{8} - \frac{5}{8} = \frac{2}{8}$

**Step 3:**
Simplify the answer if possible.

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

So, $\frac{7}{8} - \frac{5}{8} = \frac{1}{4}$.

Subtract the fractions. Simplify if possible.

**1.** $\frac{4}{5} - \frac{3}{5}$ _____

**2.** $\frac{8}{12} - \frac{3}{12}$ _____

**3.** $\frac{3}{6} - \frac{1}{6}$ _____

**4.** $\frac{9}{10} - \frac{3}{10}$ _____

**5.** $\frac{11}{12} - \frac{5}{12}$ _____

**6.** $\frac{5}{6} - \frac{1}{6}$ _____

**7.** $\frac{97}{100} - \frac{40}{100}$ _____

**8.** $\frac{5}{8} - \frac{1}{8}$ _____

**9.** $\frac{7}{10} - \frac{2}{10} - \frac{1}{10}$ _____

**10.** $\frac{7}{12} - \frac{4}{12}$ _____

**11.** $\frac{3}{4} - \frac{1}{4} - \frac{2}{4}$ _____

**12.** $\frac{8}{8} - \frac{1}{8}$ _____

**13. Reasoning** During archery practice, Manny hit the target 7 times out of 10 tries. What fraction of his arrows did NOT hit the target?

_____



Name _____

Practice
**12-4**

# Subtracting Fractions with Like Denominators

In **1** through **12**, find each difference. Simplify if possible.

**1.** $\frac{4}{5} - \frac{1}{5}$ _____

**2.** $\frac{9}{10} - \frac{5}{10}$ _____

**3.** $\frac{5}{8} - \frac{2}{8}$ _____

**4.** $\frac{6}{8} - \frac{2}{8}$ _____

**5.** $\frac{9}{10} - \frac{8}{10}$ _____

**6.** $\frac{9}{12} - \frac{5}{12}$ _____

**7.** $\frac{5}{6} - \frac{3}{6}$ _____

**8.** $\frac{3}{4} - \frac{1}{4}$ _____

**9.** $\frac{6}{8} - \frac{4}{8}$ _____

**10.** $\frac{7}{12} - \frac{3}{12}$ _____

**11.** $\frac{10}{12} - \frac{6}{12}$ _____

**12.** $\frac{4}{6} - \frac{4}{6}$ _____

**13. Geometry** The area of rectangle *A* is $\frac{11}{12}$ square meters. The area of rectangle *B* is $\frac{8}{12}$ square meters. How much larger is rectangle *A*?

_____

**14.** Joan counted that $\frac{2}{10}$ of her jelly beans were red. Dean counted that $\frac{6}{10}$ of his jelly beans were red. How much greater a fraction of Dean's jelly beans were red?

_____

**15. Think About the Process** On the weekends, Paul jogs $\frac{9}{10}$ mile. On the weekdays, Paul jogs $\frac{5}{10}$ mile. Which expression shows how many more miles Paul jogs on the weekends than on a weekday?

**A** $\frac{9}{10} + \frac{5}{10}$ **B** $\frac{9}{10} - \frac{5}{10}$ **C** $\frac{5}{10} + \frac{9}{10}$ **D** $\frac{5}{10} - \frac{9}{10}$

**16.** In a classroom, $\frac{2}{12}$ of the students play baseball, $\frac{4}{12}$ play football, $\frac{1}{12}$ are in the chorus, and the rest participate in volunteer programs. What fraction of the students participate in volunteer programs? Explain your answer.

_____

_____

_____

_____



# 5 Subtract Fractions

**Key Words**

difference

When you subtract fractions, you are removing parts of the whole. The answer when you subtract is the **difference**.

To subtract fractions with like denominators, subtract the numerators and write the difference over the denominator.

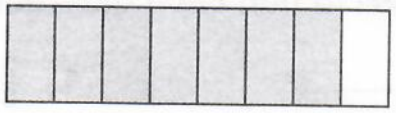
## Example

Heather walked $\frac{7}{8}$ mile to the park. Jamie walked $\frac{5}{8}$ mile to the park. How much farther did Heather walk to get to the park than Jamie?

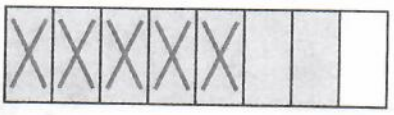
Write a subtraction equation that represents the information in the problem. Let $w$ represent how much farther Heather walked.

$$\frac{7}{8} - \frac{5}{8} = w$$

Draw a rectangle to show $\frac{8}{8}$, or 1 whole. Model $\frac{7}{8}$ by shading 7 parts.



Subtract $\frac{5}{8}$ by crossing out 5 of the shaded parts.



$$\frac{7}{8} - \frac{5}{8}$$

There are 2 parts that are not crossed out. This is the numerator. There are 8 equal parts, so the denominator does not change.

Write the difference of the numerators over the denominator.

$$\frac{7}{8} - \frac{5}{8} = \frac{7-5}{8} = \frac{2}{8}$$

Write an equivalent fraction for the difference. 2 and 8 are multiples of 2. Divide the numerator and the denominator by 2.

$$\frac{2}{8} = \frac{2 \div 2}{8 \div 2} = \frac{1}{4}$$

Heather walked $\frac{2}{8}$ or $\frac{1}{4}$ mile more than Jamie.

**DESCRIBE**

Why does the denominator stay the same when you subtract fractions with like denominators?

# Independent Practice

1. How can you use models to subtract fractions with like denominators?

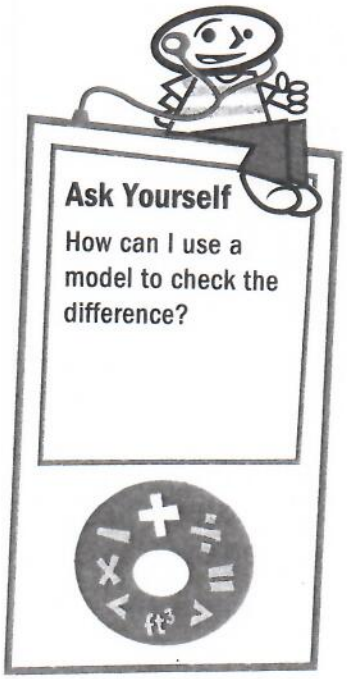
_____

_____

2. How can you use a rule to subtract fractions with like denominators?

_____

_____




**Draw a model to find each difference.**

3. $\frac{5}{8} - \frac{3}{8} =$ _____

4. $\frac{2}{3} - \frac{1}{3} =$ _____

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

6. $\frac{9}{10} - \frac{4}{10} =$ _____

7. $\frac{3}{5} - \frac{2}{5} =$ _____

8. $\frac{7}{8} - \frac{3}{8} =$ _____

9. Eric has a board that is $\frac{5}{6}$ yard long. He cuts the board into two pieces. One of the pieces is $\frac{3}{6}$ yard long. How long is the other piece?

_____

## Subtracting fractions with the same denominator

Subtract the fractions

Name:

a. $\frac{6}{10} - \frac{5}{10} = \square$

b. $\frac{8}{11} - \frac{3}{11} = \square$

c. $\frac{9}{12} - \frac{5}{12} = \square$

d. $\frac{6}{7} - \frac{3}{7} = \square$

e. $\frac{7}{9} - \frac{5}{9} = \square$

f. $\frac{5}{7} - \frac{1}{7} = \square$

g. $\frac{3}{8} - \frac{1}{8} = \square$

h. $\frac{5}{10} - \frac{3}{10} = \square$

i. $\frac{2}{11} - \frac{1}{11} = \square$

j. $\frac{3}{11} - \frac{2}{11} = \square$

k. $\frac{3}{4} - \frac{1}{4} = \square$

l. $\frac{3}{11} - \frac{1}{11} = \square$

m. $\frac{3}{5} - \frac{2}{5} = \square$

n. $\frac{3}{7} - \frac{1}{7} = \square$

o. $\frac{3}{5} - \frac{1}{5} = \square$

p. $\frac{2}{7} - \frac{1}{7} = \square$

q. $\frac{2}{8} - \frac{1}{8} = \square$

r. $\frac{4}{8} - \frac{3}{8} = \square$

s. $\frac{2}{8} - \frac{1}{8} = \square$

t. $\frac{3}{9} - \frac{1}{9} = \square$



**Total: /20**

## Adding fractions

Add the fractions

Name:

a. $\frac{3}{7} + \frac{3}{7} = \square$

b. $\frac{1}{10} + \frac{2}{10} = \square$

c. $\frac{2}{10} + \frac{6}{10} = \square$

d. $\frac{1}{19} + \frac{8}{19} = \square$

e. $\frac{2}{20} + \frac{2}{20} = \square$

f. $\frac{1}{10} + \frac{2}{10} = \square$

g. $\frac{9}{15} + \frac{2}{15} = \square$

h. $\frac{8}{19} + \frac{1}{19} = \square$

i. $\frac{1}{12} + \frac{5}{12} = \square$

j. $\frac{5}{16} + \frac{7}{16} = \square$

k. $\frac{1}{8} + \frac{1}{8} = \square$

l. $\frac{4}{19} + \frac{11}{19} = \square$

m. $\frac{1}{12} + \frac{1}{12} = \square$

n. $\frac{2}{12} + \frac{2}{12} = \square$

o. $\frac{1}{6} + \frac{2}{6} = \square$

p. $\frac{1}{6} + \frac{1}{6} = \square$

q. $\frac{2}{18} + \frac{12}{18} = \square$

r. $\frac{2}{9} + \frac{1}{9} = \square$

s. $\frac{2}{8} + \frac{2}{8} = \square$

t. $\frac{6}{18} + \frac{1}{18} = \square$



**Total:** /20

Name _____ Week of _____

Directions: Read the passage for a minute. Record how many words you read in a minute. Then, read the entire passage. Record how long it takes to read the passage.

| | 1st Read | 2nd Read | 3rd Read | 4th Read |
|---|---|---|---|---|
| 1 minute | | | | |
| Entire passage | | | | |

## Motion

A position is where something is located. For example, your books might be on your desk. Your book bag might be beside your desk. Some positions do not change, but some positions do change. Your nose is going to stay on your face, but your books might move from your desk. When something changes position, it is in motion. Motion is the change of position.

Speed is how far something moves over a certain period of time. To measure speed, you need to know the time and the distance. Distance is the change in the object's position. Time is how long it takes the object to move that distance. Time can be measured using a stopwatch. On the road, policemen measure speed using a radar gun. Speed on the road is measured in miles per hour.

Here is how you can determine speed. Distance divided by time equals speed. For example, if you traveled 120 miles in 2 hours, your speed was 60 miles per hour. If you traveled 500 miles in 5 hours, your speed was 100 miles per hour. Hopefully, you were not traveling in a car!

What do you need to measure speed?

Name _____ Week of _____

Directions: Read the passage for a minute. Record how many words you read in a minute. Then, read the entire passage. Record how long it takes to read the passage.

| | 1st Read | 2nd Read | 3rd Read | 4th Read |
|---|---|---|---|---|
| 1 minute | | | | |
| Entire passage | | | | |

## Forces Affecting Motion

Velocity is direction and speed of an object. If you are riding your bike going east, 10 miles per hour, your velocity is 10 miles per hour, east. In order for velocity to be the same, someone has to be going the same direction at the same speed.

Acceleration is the change in the speed or in the direction of an object that is in motion. Examples of acceleration are turning, stopping, starting, slowing down, or speeding up. Acceleration is any change in velocity.

An object's speed or direction can be changed by forces. Forces are pushes or pulls. The direction an object moves depends on the force's direction. If you push a box, it moves away from you. That changes the box's acceleration. The greater the push or pull the greater the acceleration. If you tap a ball, it may move a little. If you kick a ball as hard as you can, it will move a lot further away.

It is easier to push or pull objects with less mass. It takes more force to change the speed or direction of an object with more mass. Inertia is a property of matter that keeps an object from changing speed or direction without a force acting upon it. A moving object tends to keep moving while an object sitting still will stay sitting still. The more mass an object has, the more inertia it has.

3 16 31 46 51 64 75 86 87 98 110 123 135 153 164 179 194 206 219 233 239

What is velocity?

Name _____ Week of _____

Directions: Read the passage for a minute. Record how many words you read in a minute. Then, read the entire passage. Record how long it takes to read the passage.

| | 1st Read | 2nd Read | 3rd Read | 4th Read |
|---|---|---|---|---|
| 1 minute | | | | |
| Entire passage | | | | |

## Gravity

Gravity is a force that pulls you toward Earth. This is an example of gravitation, which is a force that acts between all objects causing them to pull on each other. Gravitation is what holds Earth in its orbit around the sun and helps hold the moon in its orbit around the Earth.

Weight is the force of gravitation that pulls on an object. Weight is not the same as mass since mass is the amount of matter in an object. It is measured on a balance in grams. Your mass stays the same wherever you are. However, your weight would change if you left Earth. Your weight is the force of Earth's gravity pulling on you.

Friction is the force between two things rubbing against each other. It can be used to slow or stop the motion of things touching each other. An example of this is pressing the brake to stop your bicycle. The brakes press against the wheel causing friction. Your bike slows, or stops. You can heat your hands by rubbing them together. This is also friction.

1
15
28
42
56
69
86
99
112
120
131
146
160
172
184

How are weight and mass different?

What is an example of friction?

# Forces & Motion

Choose an everyday gadget that you use. What simple machine does it use? How does that object make your life easier?

What are **simple machines**, and how do they make work easier for people?

When thinking of simple machines, what does the term, "**Work smarter, not harder**" mean?

What is a **force**, and how does it make an object move, change direction, or stop?

In each box, write the name of a simple machine and then sketch a small picture of it