

Student Learning Extension Opportunities



Grade 3-Grade 5

Week Six

Directions: These learning activities are provided for practice opportunities. Refreshing your memory of the concepts learned and keeping your mind engaged will help you maintain the skills you have learned. These learning activities are designed to provide practice over the course of the week, so spread out the work.

Support for all Clark County School District students is available via telephone. Please call **702-799-6644** to access the **Learning Line**. Educators will be available **Monday through Friday from 8:00 a.m. until 4:00 p.m.** to assist students in both English and Spanish during scheduled school days.

WEEK SIX

Reading and Writing (Science and Social Studies Integration):	Supplemental Online Resources
<p>Week 6, Day 1</p> <ul style="list-style-type: none"> Read a book at your reading level for twenty minutes. Keep track of your daily reading on the reading log below. Read the passage, "Nosing Around." Complete the graphic organizer, "Main Idea Mania" as you read the passage. 	
<p>Week 6, Day 2</p> <ul style="list-style-type: none"> Read a book at your reading level for twenty minutes. Keep track of your daily reading on the reading log below. Read the passage, "How Animals Survive on Mountains." Answer the comprehension questions. Supplemental learning: Watch the video, "Bringing Close Reading and Accountable Talk into an Interactive Read Aloud of Gorillas" using the QR code or URL to support the understanding of how to reread a passage and use another resource for more information. 	 <p>https://bit.ly/w6closeread Video: "Bringing Close Reading and Accountable Talk into an Interactive Read Aloud of Gorillas"</p>
<p>Week 6, Day 3</p> <ul style="list-style-type: none"> Read a book at your reading level for twenty minutes. Keep track of your daily reading on the reading log below. Read the passage, "A 'Coat' of Many Colors." Answer the comprehension questions. 	
<p>Week 6, Day 4</p> <ul style="list-style-type: none"> Read a book at your reading level for twenty minutes. Keep track of your daily reading on the reading log below. Read the passage, "Hooray for Hummingbirds!" Answer the comprehension questions. 	
<p>Week 6, Day 5</p> <ul style="list-style-type: none"> Read a book at your reading level for twenty minutes. Keep track of your daily reading on the reading log below. Reread a passage that you enjoyed the most this week. Use the Oreo Writing Planner to draft your opinion on why your friend should read the passage you have selected. Finally, complete the writing activity, "Passage Recommendation." Supplemental learning: Watch the video, "OREO Opinion Writing" using the QR code or URL to support the understanding of how to draft and write an opinion piece of writing. 	 <p>https://bit.ly/week6oreo Video: "OREO Opinion Writing"</p>

Student Learning Extension Opportunities

Grade 3-Grade 5

Week Six



bit.ly/pbpflyer
BouncePages flyer in
English and Spanish







Pearson BouncePages App

The BouncePages app from Pearson allows students and parents/guardians to watch animated instructional videos by simply scanning the activity page. The linked videos are available in English and Spanish.

The activity pages that can be scanned to access the Pearson videos are noted below. Use the QR codes or links in this top section for more information about using the BouncePages app.



bit.ly/usebouncepages
How to Download, Install,
and Use the Pearson
BouncePages App

Mathematics:	Grade 3 Online Resources	Grade 4 Online Resources	Grade 5 Online Resources
Week 6, Day 1 <ul style="list-style-type: none"> Complete the appropriate grade-level worksheet(s) labeled <i>Grade 3, 4, or 5</i>. Supplemental learning: Watch the appropriate grade-level video(s). 	 <p>youtu.be/Sj6PH7kKX2U Video: "Grade 3 Geometry"</p>	 <p>youtu.be/pByZTivitegc Video: "Angles"</p> <p>Use BouncePages app to watch an additional video that supports today's learning activity.</p>	 <p>youtu.be/mApnNks5Oag Video: "Coordinate Planes"</p>
Week 6, Day 2 <ul style="list-style-type: none"> Complete the appropriate grade-level worksheet(s) labeled <i>Grade 3, 4, or 5</i>. Supplemental learning: Watch the appropriate grade-level video(s). 	<p>Use BouncePages app to watch a video that supports today's learning activity.</p>	 <p>youtu.be/lrXT9qxQLi8 Video: "Line Segments, Rays, and Lines"</p>	<p>Use BouncePages app to watch a video that supports today's learning activity.</p>
Week 6, Day 3 <ul style="list-style-type: none"> Complete the appropriate grade-level worksheet(s) labeled <i>Grade 3, 4, or 5</i>. Supplemental learning: Watch the appropriate grade-level video(s). 	 <p>youtu.be/igRS_CyVOF8 Video: "Classifying Quadrilaterals"</p>	 <p>youtu.be/lKFihM7tthw Video: "Lines - Perpendicular, Intersecting, Parallel"</p> <p>Use BouncePages app to watch an additional video that supports today's learning activity.</p>	<p>Use BouncePages app to watch a video that supports today's learning activity.</p>

Student Learning Extension Opportunities

Grade 3-Grade 5

Week Six

Mathematics:	Grade 3 Online Resources	Grade 4 Online Resources	Grade 5 Online Resources
Week 6, Day 4 <ul style="list-style-type: none"> Complete the appropriate grade-level worksheet(s) labeled <i>Grade 3, 4, or 5</i>. Supplemental learning: Watch the appropriate grade-level video(s). 	Use BouncePages app to watch a video that supports today's learning activity.		
Week 6, Day 5 <ul style="list-style-type: none"> Complete the appropriate grade-level worksheet(s) labeled <i>Grade 3, 4, or 5</i>. Supplemental learning: Watch the appropriate grade-level video(s). 	Use BouncePages app to watch a video that supports today's learning activity.		

Reading Log


Keep track of your daily reading.

Beginning Page	Ending Page	Title


Oportunidades de Continuación para Aprendizaje del Estudiante del 3^{er} al 5^o Grado Semana Seis



Instrucciones: Estas actividades de aprendizaje se ofrecen como oportunidades de práctica. Refrescar tu memoria de los conceptos aprendidos y mantener tu mente ocupada te ayudará a mantener las habilidades que has aprendido. Estas actividades de aprendizaje están diseñadas para proporcionar práctica en el transcurso de la semana, así que distribuye el trabajo.



El apoyo a todos los estudiantes del Distrito Escolar del Condado de Clark está disponible por teléfono. Por favor llama al **702-799-6644** para acceder a la **Línea de Aprendizaje**. Los educadores estarán disponibles de **lunes a viernes de 8:00 a.m. a 4:00 p.m.** para ayudar a los estudiantes tanto en inglés como en español durante los días de clases.

SEMANA SEIS	
Lectura y Escritura (Integración de las Ciencias y Estudios Sociales):	Recursos Suplementarios en Línea
Semana 6, día 1 <ul style="list-style-type: none"> • Lee un libro a tu nivel de lectura durante veinte minutos. Lleva la cuenta de tu lectura diaria en el registro de la parte inferior. • Lee el texto, "Nosing Around." • Mientras lees el texto, "Main Idea Mania" completa el organizador gráfico. 	
Semana 6, día 2 <ul style="list-style-type: none"> • Lee un libro a tu nivel de lectura durante veinte minutos. Lleva la cuenta de tu lectura diaria en el registro de la parte inferior. • Lee el texto, "How Animals Survive on Mountains." • Contesta las preguntas de comprensión. • Aprendizaje suplementario: Ve el video, "Bringing Close Reading and Accountable Talk into an Interactive Read Aloud of <i>Gorillas</i>" usando el código QR o URL para apoyar la comprensión de como volver a leer un texto y usar otro recurso para obtener más información. 	 https://bit.ly/w6closeread Video: "Bringing Close Reading and Accountable Talk into an Interactive Read Aloud of <i>Gorillas</i> "
Semana 6, día 3 <ul style="list-style-type: none"> • Lee un libro a tu nivel de lectura durante veinte minutos. Lleva la cuenta de tu lectura diaria en el registro de la parte inferior. • Lee el texto, "A 'Coat' of Many Colors." • Contesta las preguntas de comprensión. 	
Semana 6, día 4 <ul style="list-style-type: none"> • Lee un libro a tu nivel de lectura durante veinte minutos. Lleva la cuenta de tu lectura diaria en el registro de la parte inferior. • Lee el texto, "Hooray for Hummingbirds!" • Contesta las preguntas de comprensión. 	



Oportunidades de Continuación para Aprendizaje del Estudiante del 3^{er} al 5^o Grado Semana Seis

<p>Semana 6, día 5</p> <ul style="list-style-type: none"> • Lee un libro a tu nivel de lectura durante veinte minutos. Lleva la cuenta de tu lectura diaria en el registro de la parte inferior. • Vuelve a leer un texto que te haya gustado más esta semana. • Utiliza el Planificador de Escritura Oreo para redactar tu opinión sobre por qué tu amigo debería leer el texto que has seleccionado. • Por último, completa la actividad de escritura, "Passage Recommendation." • Aprendizaje suplementario: Ve el video, "OREO Opinion Writing" usando el código QR o URL para apoyar la comprensión de cómo redactar y escribir un artículo de opinión. 	 https://bit.ly/week6oreo Video: "OREO Opinion Writing"
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 bit.ly/pbpflyer El folleto BouncePages en inglés y español	<p>Aplicación Pearson BouncePages</p> <p>La aplicación BouncePages de Pearson permite que los estudiantes y padres/tutores vean videos educativos animados simplemente escaneando la página de actividad. Los videos conectados están disponibles en inglés y en español.</p> <p>Las páginas de actividad se pueden escanear para tener acceso a los videos Pearson mencionados a continuación. Use los códigos QR o enlaces en la sección superior para más información sobre cómo usar la aplicación BouncePages.</p>	 bit.ly/usebouncepages Cómo Descargar, Instalar y Utilizar la Aplicación Pearson BouncePages
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Matemáticas:	Recursos en Línea 3 ^{er} Grado	Recursos en Línea 4 ^o Grado	Recursos en Línea 5 ^o Grado
<p>Semana 6, día 1</p> <ul style="list-style-type: none"> • Completa las hojas de trabajo correspondientes al nivel de grado, marcadas, 3^{er}, 4^o, o 5^o Grado. • Aprendizaje suplementario: Ve los videos correspondientes al nivel de grado. 	 youtu.be/Sj6PH7kKX2U Video: "Grade 3 Geometry"	 youtu.be/pByZTvitgdc Video: "Angles" Utiliza la aplicación BouncePages para ver un video adicional que apoye la actividad de aprendizaje de hoy.	 youtu.be/mApnNks5Oag Video: "Coordinate Planes"
<p>Semana 6, día 2</p> <ul style="list-style-type: none"> • Completa las hojas de trabajo correspondientes al nivel de grado, marcadas, 3^{er}, 4^o, o 5^o Grado. • Aprendizaje suplementario: Ve los videos correspondientes al nivel de grado. 	<p>Utiliza la aplicación BouncePages para ver un video que apoye la actividad de aprendizaje de hoy.</p>	 youtu.be/lrXT9qxQLi8 Video: "Line Segments, Rays, and Lines"	<p>Utiliza la aplicación BouncePages para ver un video que apoye la actividad de aprendizaje de hoy.</p>

Oportunidades de Continuación para Aprendizaje del Estudiante del 3^{er} al 5^o Grado Semana Seis

Matemáticas:	Recursos en Línea 3 ^{er} Grado	Recursos en Línea 4 ^o Grado	Recursos en Línea 5 ^o Grado
Semana 6, día 3 <ul style="list-style-type: none"> Completa las hojas de trabajo correspondientes al nivel de grado, marcadas, 3^{er}, 4^o, o 5^o Grado. Aprendizaje suplementario: Ve los videos correspondientes al nivel de grado. 	 youtu.be/igRS_CyVOF8 Video: "Classifying Quadrilaterals"	 youtu.be/lKEihM7tthw Video: "Lines - Perpendicular, Intersecting, Parallel" Utiliza la aplicación BouncePages para ver un video adicional que apoye la actividad de aprendizaje de hoy.	Utiliza la aplicación BouncePages para ver un video que apoye la actividad de aprendizaje de hoy.
Semana 6, día 4 <ul style="list-style-type: none"> Completa las hojas de trabajo correspondientes al nivel de grado, marcadas, 3^{er}, 4^o, o 5^o Grado. Aprendizaje suplementario: Ve los videos correspondientes al nivel de grado. 	Utiliza la aplicación BouncePages para ver un video que apoye la actividad de aprendizaje de hoy.		
Semana 6, día 5 <ul style="list-style-type: none"> Completa las hojas de trabajo correspondientes al nivel de grado, marcadas, 3^{er}, 4^o, o 5^o Grado. Aprendizaje suplementario: Ve los videos correspondientes al nivel de grado. 	Utiliza la aplicación BouncePages para ver un video que apoye la actividad de aprendizaje de hoy.		

Registro de Lectura

Lleva un registro de tu lectura diaria.

Página inicial	Página final	Título

Name _____

Nosing Around

Our noses are a treat for our senses. They inhale the delicious smells of baking cookies and sizzling bacon. They also alert us to danger, such as toast burning in a toaster.

Animals also use their noses to smell. However, some animals are capable of using their noses in quite different ways. Have you ever wondered why some animals sport odd-shaped noses?

Elephants have a very familiar odd-shaped nose. An elephant's nose, or trunk, is used for touching, tasting, breathing, and drinking. Did you know that an elephant can use its nose to keep cool in the blazing hot sun? The elephant also uses its nose to reach food that is inaccessible otherwise.

You would think by its name that the elephant nose fish has something special or fascinating about its nose. Indeed, an elephant nose fish is much smaller than a large elephant. However, its "nose" is pretty prominent. Elephant nose fish can be found in muddy waters in Africa. This fish actually uses its long "nose" to seek food in the thick, sticky mud.

The hammerhead shark uses its nose to search for food, too, but in this case, its prey. On the menu for this shark's favorite meal: stingrays. A hammerhead maneuvers its snout to dig stingrays out of their hiding places in the sand. So much for getting buried in the sand to avoid capture!

Then there's the star-nosed mole. This animal has one strange nose! Its nose is covered with 22 tentacles. These tentacles do not have sting cells on them like those of a jellyfish. Still, they help the mole to find food quickly. Insects and worms make favorite main courses for moles. Nosing around could not be more important when it comes to finding these delights.

What all of these animals have in common is an extension that sits somewhere on or near their face. How they use their noses may seem funny to humans, but is the difference between death and survival in the wild.

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Directions: After reading the passage, "Nosing Around" identify the topic, three main ideas, and two key details under each main idea. Remember to cite evidence from the passage.

Name _____

C.017.SSI

Main Idea Mania

Topic

main idea

detail

detail

main idea

detail

detail

main idea

detail

detail

How Animals Survive on Mountains

This text is adapted from an original work of the Core Knowledge Foundation.

An old tall tale says that mountain animals, such as goats, are born with the legs on one side of their bodies longer than the ones on the other side. The idea is that this would make it easier for them to walk along steep mountain slopes.

If you think about it, though, there would be one big drawback to such an arrangement. The animal could only move in one direction! If it turned around so that its short legs were on the downhill side, it would tip over and tumble down the mountain!



Mountain goats have little trouble moving around some of the world's highest places.

Getting Around

Animals such as mountain goats and sheep have bodies that make it easier for them to get around. For example, their hooves have sharp edges that help them grip the steep mountainside. Mountain goats are probably the most surefooted of the mountain animals. Goats sometimes walk out onto a narrow ledge. When the ledge ends, the goats rise up on their back legs, turn around, and walk back.

Cool Facts About Mountain Animals:

- The Rocky Mountains in western North America are home to 67 different species of mammals, including wolverines, and 270 different species of birds, including the three-toed woodpecker.
- The Himalayas are home to 300 different identified species of mammals, including the red panda, 977 identified species of birds, including the Himalayan Griffon Vulture, 105 identified species of amphibians, and 269 identified species of fish.
- Between 2009 and 2014, scientists discovered more than two hundred new species of plants and animals living in the eastern Himalayas. One new discovery is of a blue "walking" snakehead fish. These fish can breathe air and can survive on land for short periods of time.

Surviving the Cold

Mountains can get very cold, especially in winter. Mountain animals need a way to survive the cold weather. Animals can deal with that problem in four ways:

1. They can move down the mountain to where it is warmer and there is more shelter.
2. They can grow heavy coats to keep them warm.
3. They can find shelter underground or under the snow.
4. They can hibernate.

Most large mountain animals spend the winter lower down the mountain. In the Rockies, elk and bighorn sheep move farther down. There, they find shelter from the cold and wind among trees and bushes.

Mountain goats, on the other hand, stay high up. They have two layers of fur to keep them warm. One is a soft, woolly undercoat. The other layer is a longer, shaggy outer coat. In the spring and summer, they shed large parts of these coverings. They end up looking rather untidy.

The meadow vole also stays high up in the mountains. A vole is a small animal similar to a mouse. The vole digs tunnels under the snow. It lives underground during the winter. The snow keeps the wind and cold away.

Some animals, such as ground squirrels, survive by hibernating. They spend the summer and fall eating lots of food. The food is stored as fat in their bodies. In the late fall, they go into their holes and sleep. Slowly their bodies cool off until they are the same temperatures as the hole, about 45°F (7°C) to 50°F (10°C). Their heartbeats and breathing slow down. Their bodies need less energy and can live off their stored body fat.



Marmots survive the winter by hibernating.

“How Animals Survive on Mountains” Comprehension Questions

Answer the following questions.

1) What key details support the main idea of the passage?

2) What does the author mean about goats being “the most surefooted” in paragraph three?

3) The author wrote, “Some animals, such as ground squirrels, survive by hibernating.” What words or phrases does the author use to inform the reader about the definition of hibernating?

Name _____

A “Coat” of Many Colors

Life can be tough for some animals. Imagine spending most of your life either looking for food or trying to avoid becoming food for predators. Yet one or both of these tasks are necessary for individuals and species to survive.

How does a lion sneak up on its prey without being seen? How can an insect protect itself from birds looking for a tasty snack? How do little fish avoid becoming prey to bigger fish? Whether you are a predator or prey, the ability to seem to disappear into your surroundings is a huge advantage.

The word camouflage comes from a French word meaning “to disguise.” A camouflaged animal takes on the appearance of its surroundings. Lions seem to disappear into the tall grass of the savanna. This allows them to sneak up on their prey without being seen. Squirrel fur is rough, uneven, and a grey-brown color. To a hawk or eagle looking for food, the squirrel looks like tree bark. Some insects have a hard shell that looks like dead leaves or branches.

Reptiles, amphibians, and fish are covered in scales. They produce colored pigments called biochromes. These pigments may be in skin cells or at deeper levels of the body. As some animals move from one background to another, they can quickly change color to match, making them nearly invisible. Also, some sea creatures, such as certain species of nudibranch (NOO duh brangk), change color by changing their diet. Their bodies take on the color of the coral they eat, so they become almost invisible. Imagine what it would be like to possess an ability like that!

What about birds, whose coloring is in their feathers? Birds can’t change color quickly, but many birds do change color with the seasons. Varying temperatures or hours of daylight cause these birds to grow a new set of feathers as the background changes. For example, a bird that is mainly brown in summer may change to white in winter.

Camouflage abilities develop gradually through the process of natural selection. For example, if an individual animal’s coloring closely matches its surroundings, predators are less likely to devour it. As a result, it survives to produce offspring. These offspring inherit the same coloration, so they also live long enough to pass it on.



“A ‘Coat’ of Many Colors” Comprehension Questions

Answer the following questions.

1) Circle the names of animals in the passage that change color and underline what causes their color to change. Write the name of each animal and what causes it to change color below.

2) Write the descriptive words and phrases the author uses to show how animals use camouflage to protect themselves.

3) Briefly explain how color change is important to each animal's survival. Remember to cite evidence from the passage.

Hooray for Hummingbirds!

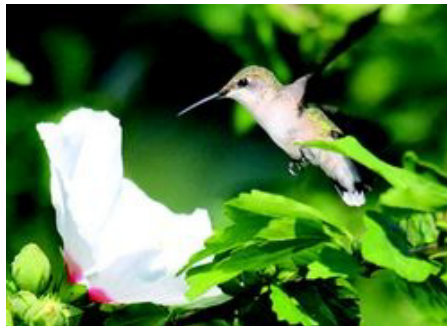
This text is provided courtesy of the National Audubon Society.

Wings whirring, a hummingbird buzzes up to a flower. It stops short, hovers, then pokes its long bill into the flower and uses its long tongue to sip nectar. Once, twice, three times it backs up, pauses, and dives into the flower again. Then **zzzzzz!** Off it flies to another flower. **Zip, sip, zip**-that's hummingbird style!

No other bird flies quite like a hummingbird. Because of the way their wings are made, hummingbirds can hover in one spot as well as fly backwards, side to side, straight up and down, and even **upside-down!**

Hummingbirds also flap amazingly fast—from 20 to 200 times per second. The rapidly beating wings make the humming noise that gives hummingbirds their name.

While hummers sometimes eat small insects and spiders, their favorite food by far is plant nectar. Different kinds of hummingbirds prefer different plants. Hummingbirds often visit many kinds of flowers while searching for nectar. All this flower-visiting makes a hummingbird an excellent pollinator. Flowers need pollen from other flowers to make seeds, but they can't visit other plants to swap pollen. Instead, some flowers get the job done when their pollen sticks to a feeding hummingbird's feathers and bill. The hummer carries this pollen to the next flower it visits.



Kelly Hunt/Photos by MK

A female ruby-throated hummingbird gets ready to sip some nectar.

It takes a lot of fuel to power a busy hummingbird on an ordinary day. A hummingbird needs even more energy when it's migrating—traveling between the place where it raises its young and the place where it spends winter. Ruby-throated hummingbirds, for example, double their weight before leaving their winter home in Central America and migrating north. Some of the other hummingbird species that migrate to the United States and Canada are the rufous, magnificent, and calliope hummingbirds.

“Hooray for Hummingbirds!” Comprehension Questions

Answer the following questions.

1) What is the main idea of the passage?

2) How do hummingbirds help plants pollinate? Use details from the passage to describe the process.

3) What detail about hummingbirds is the most fascinating to you? Thinking about that detail, write one question you would like to ask an expert about hummingbirds.

Select one passage from this week’s reading that you enjoyed the most. Reread the passage and write an opinion piece to recommend a friend to read the passage you selected. Use the “Oreo Writing Planner” on the next page to jot your ideas down. Finally, use the OREO planner to help you write your opinion why to read the passage you selected on the lines below. Remember to give your recommendation a catchy title.

[illegible]

OREO Writing Planner

Opinion stated clearly _____

Reason you feel your opinion is correct _____

Example that supports your reason above with more details

Reason you feel your opinion is correct _____

Example that supports your reason above with more details

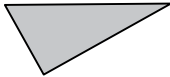
Opinion restated with enthusiasm



Name _____

Date _____

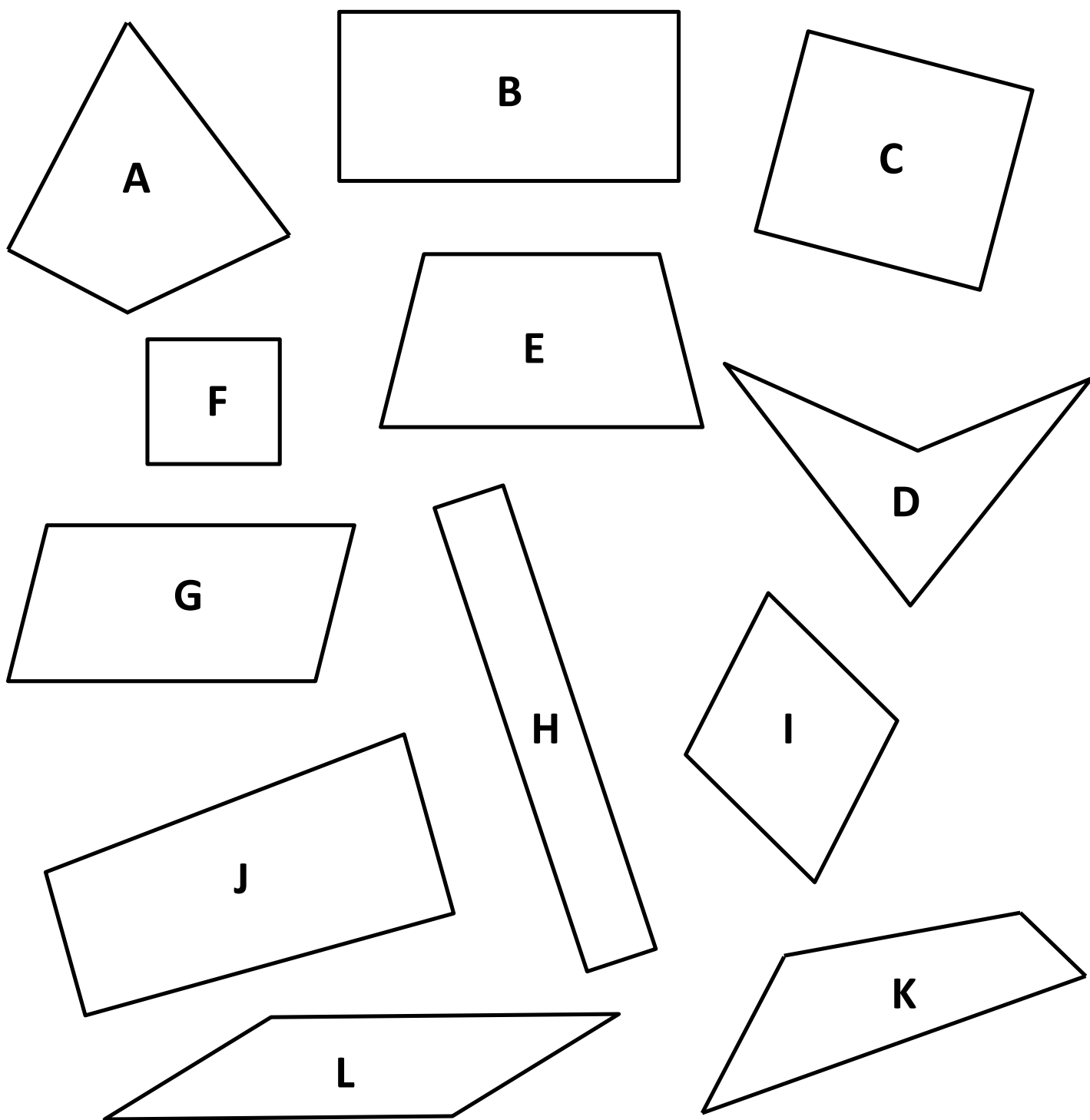
1. Cut out all the polygons (A–L) in the template. Then use the polygons to complete the following chart.

Attribute	Write the letters of the polygons in this group.	Sketch 1 polygon from the group.
<i>Example:</i> 3 Sides	Polygons: Y, Z	
4 Sides	Polygons:	
1 Set of Parallel Sides	Polygons:	
2 Sets of Parallel Sides	Polygons:	
4 Right Angles	Polygons:	
4 Right Angles and 4 Equal Sides	Polygons:	



Lesson 4: Compare and classify quadrilaterals.
Date: 8/12/16

engage^{ny}7.B.10



Additional Practice 15-1

Describe Quadrilaterals

Another Look!

Some quadrilaterals have special names because of their sides. Some have special names because of their angles. Here are some examples.

The same polygon can have more than one name.



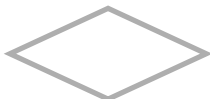
Parallelogram

Opposite sides are the same length.



Rectangle

Parallelogram with 4 right angles



Rhombus

Parallelogram with 4 equal sides



Square

Rhombus with 4 right angles



Trapezoid

Exactly 1 pair of sides that never cross

In 1–4, read the description and circle the correct quadrilateral. Write the name.

1. I have 4 right angles and all sides the same length. I am a _____.



2. I have exactly 1 pair of sides that never cross. I am a _____.



3. I have 4 right angles, but only my opposite sides are equal. I am a _____.

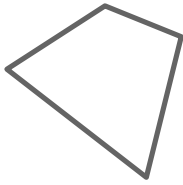


4. I have all sides the same length, but I have no right angles. I am a _____.



5. Is a trapezoid also a parallelogram? Explain why or why not.

6. Christine drew the shape shown below. Madison changes Christine's shape so that it has every side equal and every angle equal. What shape does Madison make?



7. There are 20 slices of bread in a loaf. How many 2-slice sandwiches can you make with 1 loaf? Write a multiplication fact and a division fact you could use to solve this problem.

8. **enVision® STEM** Mari pushed a cube-shaped box to explore force. She examined the attributes of the box. Does a face of her box have a right angle? Explain.

9. **Be Precise** Mr. Rose asked his students to draw a quadrilateral with 4 unequal sides. Draw an example of this kind of quadrilateral.

In 10 and 11, use the shape at the right.

10. **Higher Order Thinking** Melissa drew the shape at the right. What two quadrilaterals did she use to draw the shape? Draw a line to divide the shape into two quadrilaterals.
11. Suppose Melissa redrew the shape by turning it on its side. Would this change the names of the quadrilaterals she used? Explain.



Assessment Practice

12. A square and a rectangle are shown at the right. Which attributes do these shapes always have in common? Select all that apply.



- | | |
|---|---------------------------------------|
| <input type="checkbox"/> Number of sides | <input type="checkbox"/> Side lengths |
| <input type="checkbox"/> Angle measures | <input type="checkbox"/> Right angles |
| <input type="checkbox"/> Number of angles | |

Another Example!

These are **convex** polygons. All angles point outward.



These are **concave** polygons. One or more angles point inward.



★ Guided Practice ★

Do You Understand?

1. This figure is a rectangle, but it is **NOT** a square. Why?



2. Draw two different quadrilaterals that are not rectangles, squares, or rhombuses.

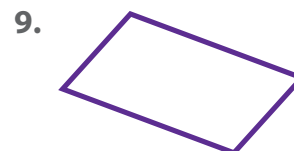
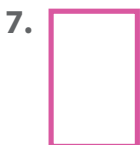
Do You Know How?

In **3–6**, write as many special names as possible for each quadrilateral.



★ Independent Practice ★

In **7–9**, write as many special names as possible for each quadrilateral.



In **10**, name all the possible quadrilaterals that fit the rule.

10. Has 2 pairs of parallel sides _____

*For another example, see Set A on page 837.

Math Practices and Problem Solving

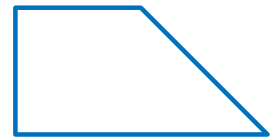
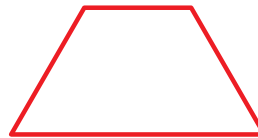
In **11** and **12**, write the name that best describes the quadrilateral. Draw a picture to help.

11. **A-Z Vocabulary** A rectangle with all sides the same length is a _____.

12. **A-Z Vocabulary** A parallelogram with four right angles is a _____.

13. **MP. 7 Look for Relationships** I am a quadrilateral with opposite sides the same length. Which quadrilaterals could I be?

14. **Higher Order Thinking** Jae says that the figure on the left is a trapezoid. Carmen says that the figure on the right is a trapezoid. Who is correct? Explain.



Some problems have more than one correct answer.



15. Sue bought a book for \$12, two maps for \$7 each, and a pack of postcards for \$4. What was Sue's total cost?

16. **Algebra** Angela drew 9 rhombuses and 6 trapezoids. She wants to find q , the total number of angles in her quadrilaterals. Explain how Angela can find q .

Common Core Assessment

17. Does the name describe the quadrilateral below? Choose Yes or No.



- | | | |
|----------------|---------------------------|--------------------------|
| Convex polygon | <input type="radio"/> Yes | <input type="radio"/> No |
| Rhombus | <input type="radio"/> Yes | <input type="radio"/> No |
| Square | <input type="radio"/> Yes | <input type="radio"/> No |
| Rectangle | <input type="radio"/> Yes | <input type="radio"/> No |

Additional Practice 15-2 Classify Shapes

Another Look!

What attribute do these two shapes have in common?

What is another shape that shares this attribute?



Think about attributes that shapes can have. What attribute do these shapes share?



The rhombus has 2 pairs of sides that are the same length.

The parallelogram also has 2 pairs of sides that are the same length.

A rectangle also has 2 pairs of sides that are the same length.



In 1–3, use the groups below.

Group 1



Group 2



1. How do the shapes in Group 1 differ from those in Group 2?
2. How are the two groups alike?
3. What group of polygons do all the shapes belong to?
4. Draw a shape that is neither a square nor concave.
5. Draw a shape that is neither a trapezoid nor has a right angle.

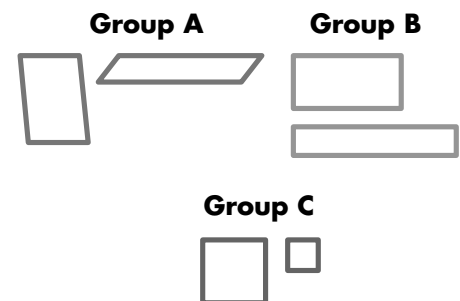
6. Frida sorted polygons so Group 1 was only squares. Group 2 was only rectangles, not squares. Frida said all the shapes are parallelograms. Sam said they are all quadrilaterals. Who is right? Why?

7. **Be Precise** Can you draw a square that is **NOT** a rhombus? Explain.

8. **Number Sense** A bike helmet has a mass of 285 grams. Elena says that is about 300 grams. Is her estimate greater than, less than, or equal to the actual mass?

9. **A-Z Vocabulary** Define *convex shape*. Draw a convex shape.

10. **Higher Order Thinking** Hope makes 3 groups of shapes. What larger group do the shapes in A and B belong to? What larger group do the shapes in A and C belong to? What larger group do the shapes in B and C belong to?



Assessment Practice

11. Which shape is a quadrilateral and a rectangle?

- (A) Rhombus
- (B) Parallelogram
- (C) Square
- (D) Trapezoid

12. Which shape could be sorted into a group of quadrilaterals or a group of parallelograms?

- (A) Hexagon
- (B) Triangle
- (C) Rhombus
- (D) Trapezoid

Additional Practice 15-3

Analyze and Compare Quadrilaterals

Another Look!

List all the names and attributes of a square.

A square is a quadrilateral.

It has 4 sides.

A square is a parallelogram.

Its opposite sides are the same length.

A square is a rectangle.

It has 4 right angles and opposite sides are the same length.

A square is a rhombus.

It has 4 sides of the same length.

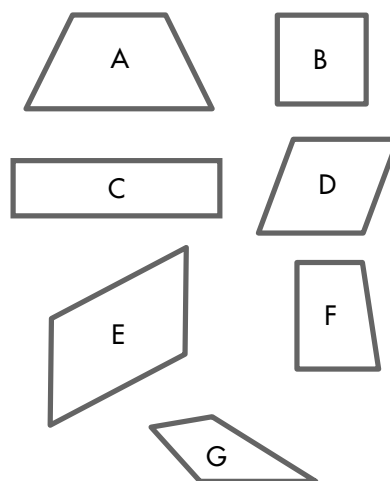


You can use structure to analyze and compare the attributes of a square with other polygons.

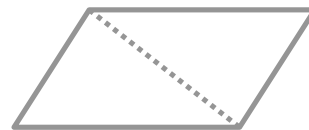


In **1–6**, list all the polygons shown at the right that fit the description. If no polygon fits the description, tell why.

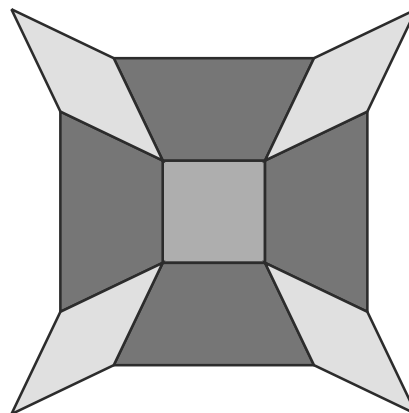
1. Is a square
2. Has at least one right angle but is not a square
3. Has no sides the same length
4. Is a square but not a rectangle
5. Is a parallelogram but not a rectangle
6. Is a rectangle with no angles the same size



- 7. Critique Reasoning** Mary claims that you can cut a parallelogram along its diagonal and get two pieces that are the same size and shape. Larry says that you cannot cut all parallelograms this way. Who is correct? Explain your thinking.



- 8.** How are all the polygons in the mosaic alike and how are they different?

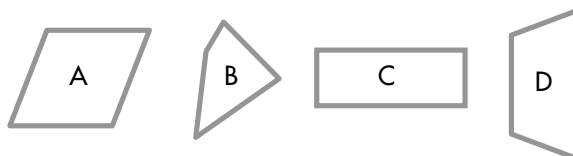


- 9. Higher Order Thinking** Can you create a mosaic using the quadrilateral shown? The mosaic should not have any gaps or overlap. Draw your mosaic or tell why you cannot create one.



Assessment Practice

- 10.** Look at these polygons.



Part A

Name at least 2 attributes that A and C share.

Part B

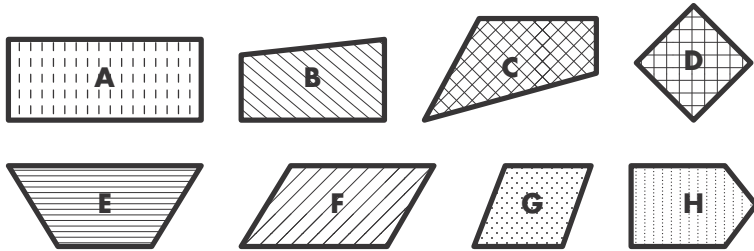
Tell how B is different from the other 3 polygons.

Name _____

That's a Wrap!

Quadrilaterals have 4 sides. Some have opposite sides parallel and some do not. Some have angles that are the same size and some do not. You can classify quadrilaterals in different ways.

Callie wanted to try using different shapes of wrapping paper to wrap presents. She tried the shapes shown below. List all the wrapping paper shapes that fit each description.



1. Is a rectangle and a rhombus

Shape(s) _____

2. Is a rectangle but not a rhombus

Shape(s) _____

3. Has at least one pair of parallel sides, but is not a parallelogram

Shape(s) _____

4. Is not a quadrilateral

Shape(s) _____

5. Has at least 1 right angle

Shape(s) _____

Additional Practice 15-1

Lines, Rays, and Angles

Another Look!

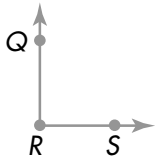
Here are some important geometric terms.



• C

Point

A point is an exact location in space. This is point C.



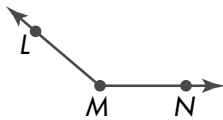
Right angle

A right angle forms a square corner. This is $\angle QRS$.



Line

A line is a straight path of points that goes on and on in opposite directions. This is \overleftrightarrow{AB} .



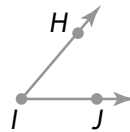
Obtuse angle

An obtuse angle is greater than a right angle. This is $\angle LMN$.



Line segment

A line segment is part of a line. It has two endpoints. This is \overline{XY} .



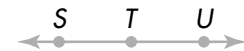
Acute angle

An acute angle is less than a right angle. This is $\angle HIJ$.



Ray

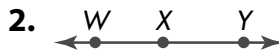
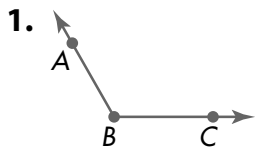
A ray is part of a line. It has one endpoint and goes on and on in one direction. This is \overrightarrow{AB} .



Straight angle

A straight angle forms a straight line. This is $\angle STU$.

For 1–3, use geometric terms to describe what is shown. Be as specific as possible.



For 4–7, draw the geometric figure for each term.

4. Line

5. Ray

6. Line segment

7. Acute angle

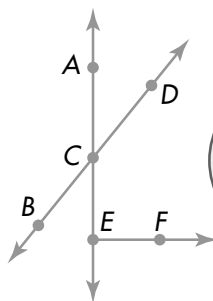


For 8–10, use the diagram at the right.

8. Name two lines.

9. Name two obtuse angles.

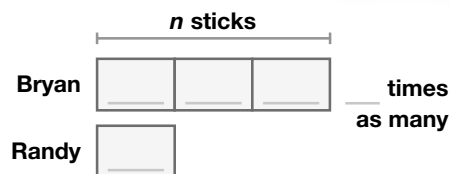
10. Name one point that lies on two lines.



There may be more than one name for the same geometric figure.

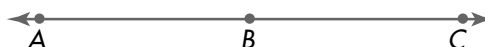


11. **Model with Math** Randy used 92 sticks to build a model. Bryan used 3 times as many sticks. Complete the bar diagram to represent how many sticks Bryan used. Then find how many more sticks Bryan used than Randy. Write and solve equations.



12. **Vocabulary** What is the difference between a *line* and a *line segment*? Draw an example of each.

13. **Higher Order Thinking** Name two rays with the same endpoint in the figure below. Do they form an angle? Explain.



Assessment Practice

14. What is the name for the figure shown below?



- (A) Ray \overrightarrow{GH}
- (B) Line \overleftrightarrow{GH}
- (C) Line Segment \overline{HG}
- (D) Angle $\angle GH$

15. Mary drew \overleftrightarrow{XY} . Which of the following is Mary's drawing?

- (A) $\bullet X$
- (B)
- (C)
- (D)

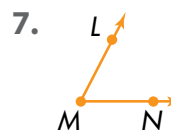
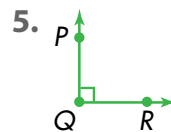
★ Guided Practice ★

Do You Understand?

1. **MP.6 Be Precise** What geometric term describes a part of a line that has one endpoint? Draw an example.
2. What geometric term describes a part of a line that has two endpoints? Draw an example.
3. Which geometric term describes an angle that forms a square corner? Draw an example.

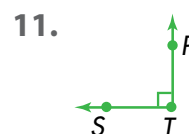
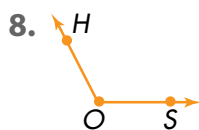
Do You Know How?

For 4–7, use geometric terms to describe what is shown.



★ Independent Practice ★

For 8–11, use geometric terms to describe what is shown.

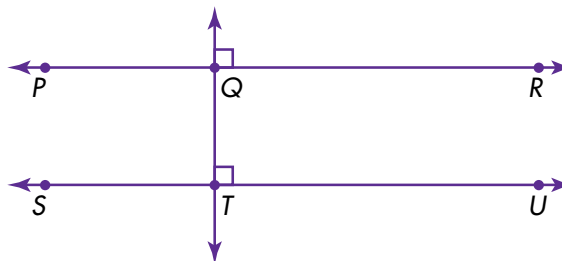


For 12–14, use the diagram at the right.

12. Name four line segments.

13. Name four rays.

14. Name 2 right angles.



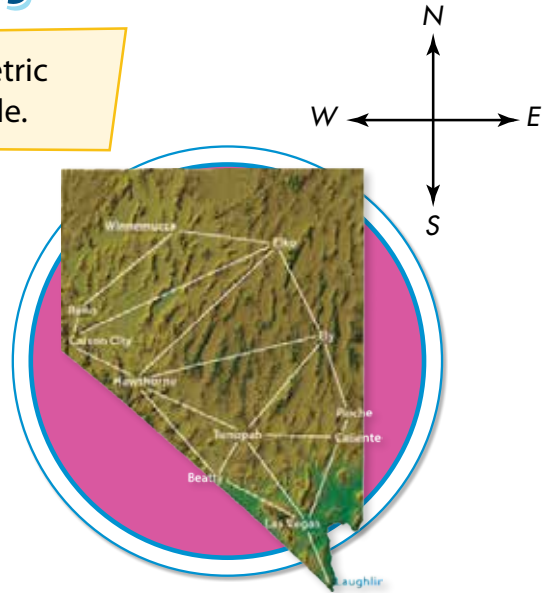
Math Practices and Problem Solving

For **15–17**, use the map of Nevada. Write the geometric term that best fits each description. Draw an example.

15. © MP.6 Be Precise The route between 2 cities.

16. The cities

17. Where the north and west borders meet

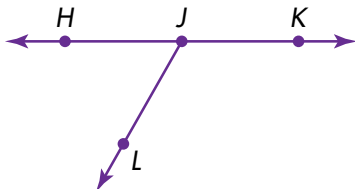


18. A-Z Vocabulary Write a definition for *right angle*. Draw a right angle. Give 3 examples of right angles in the classroom.

19. Higher Order Thinking Nina says she can make a right angle with an acute angle and an obtuse angle that have a common ray. Is Nina correct? Draw a picture and explain.

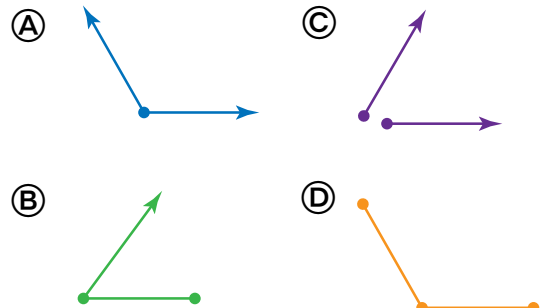
© Common Core Assessment

20. Which geometric term describes $\angle HJK$?



- (A) Acute (C) Right
(B) Obtuse (D) Straight

21. Lisa drew 2 rays that share an endpoint. Which of the following is Lisa's drawing?



Additional Practice 16-1

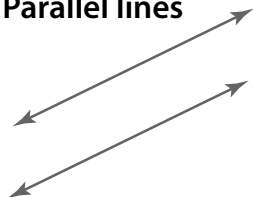
Lines

Another Look!

You can use geometric terms to describe what you draw.



Parallel lines



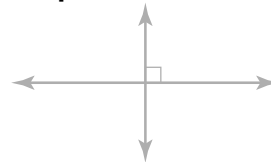
Parallel lines never intersect.

Intersecting lines



Intersecting lines pass through the same point.

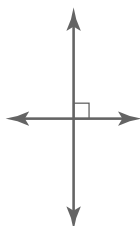
Perpendicular lines



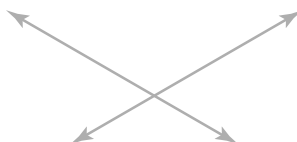
Perpendicular lines form right angles.

For 1–3, use geometric terms to describe what is shown. Be as specific as possible.

1.



2.



3.



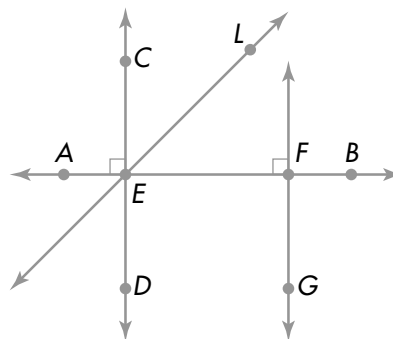
For 4–7, use the figure at the right.

4. Name three different lines.

5. Name a pair of parallel lines.

6. Name two lines that are perpendicular.

7. Name two intersecting lines that are not perpendicular.

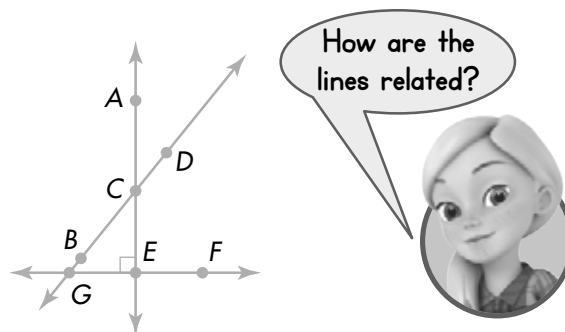


For 8–10, use the figure at the right.

8. Name two lines.

9. Name two lines that are perpendicular.

10. Draw a line \overleftrightarrow{HF} on the diagram that is parallel to \overleftrightarrow{AE} and perpendicular to \overleftrightarrow{GF} .



11. **A-Z Vocabulary** Draw and describe a point. What real-world object could you use as a model of a point?

12. **Critique Reasoning** Ali says if two lines share a point, they cannot be parallel. Do you agree? Explain.

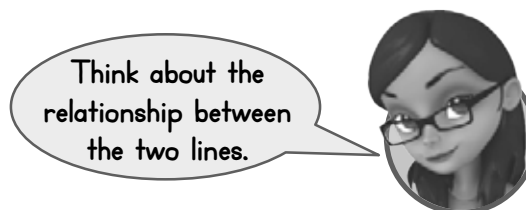
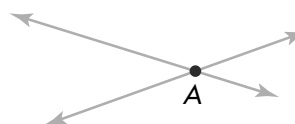
13. Draw and label parallel lines \overleftrightarrow{XY} and \overleftrightarrow{RS} . Then draw and label \overleftrightarrow{TS} so it is perpendicular to both \overleftrightarrow{XY} and \overleftrightarrow{RS} . Draw point Z on \overleftrightarrow{TS} .

14. **Higher Order Thinking** \overleftrightarrow{RS} is perpendicular to \overleftrightarrow{TU} . \overleftrightarrow{RS} is parallel to \overleftrightarrow{VW} . What is the relationship between \overleftrightarrow{TU} and \overleftrightarrow{VW} ? Draw lines if needed.

Assessment Practice

15. Which geometric term would you use to describe the lines to the right?

- (A) Perpendicular lines
- (B) Point A
- (C) Parallel lines
- (D) Intersecting lines



Name _____

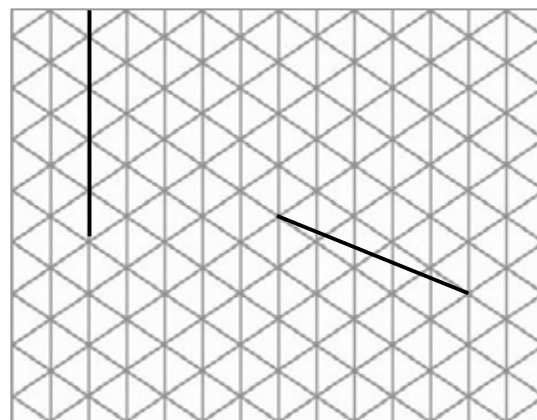
Date _____

1. On each object, trace at least one pair of lines that appear to be parallel.



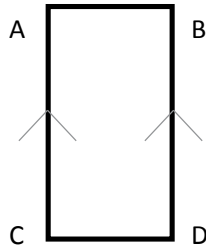
2. How do you know if two lines are parallel?

3. In the square and triangular grids below, use the given segments in each grid to draw a segment that is parallel using a straightedge.

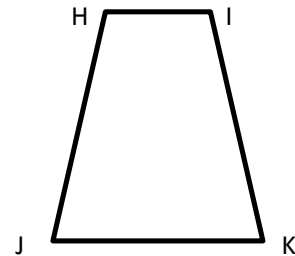


4. Determine which of the following figures have sides that are parallel. Circle the letter of the shapes that have at least one pair of parallel sides. Mark each pair of parallel sides with arrows as shown in a.

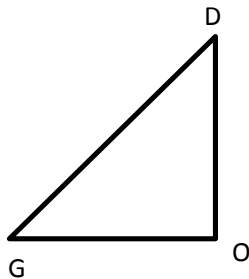
a.



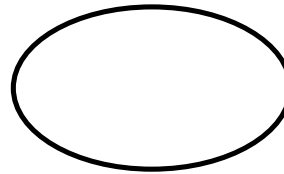
b.



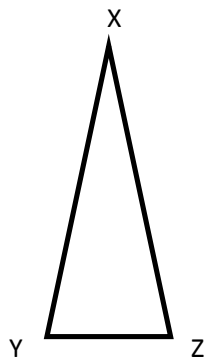
c.



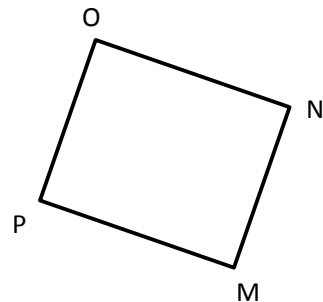
d.



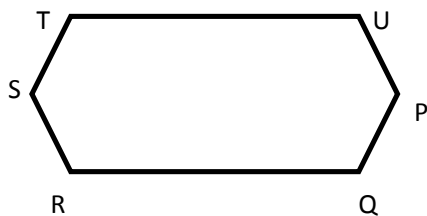
e.



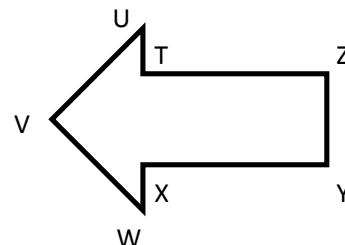
f.



g.

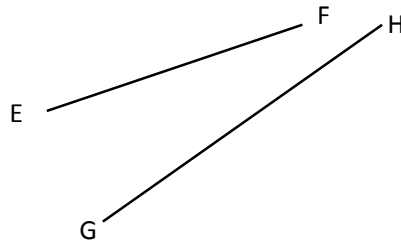
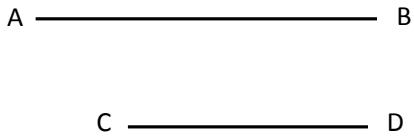


h.



5. True or false? All shapes with a right angle have sides that are parallel. Explain your thinking.

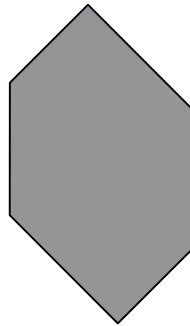
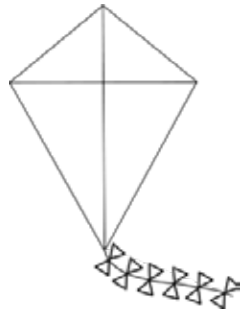
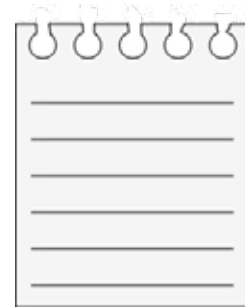
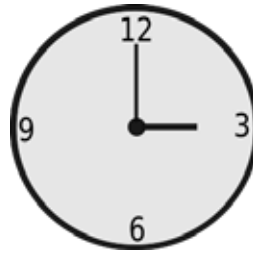
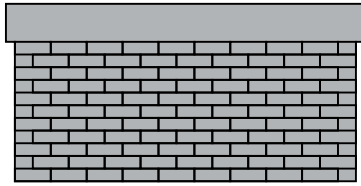
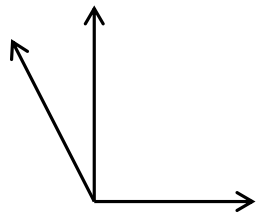
6. Explain why \overline{AB} and \overline{CD} are parallel, but \overline{EF} and \overline{GH} are not.



Name _____

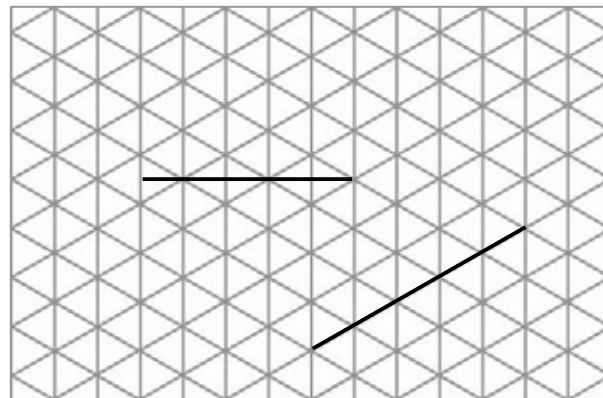
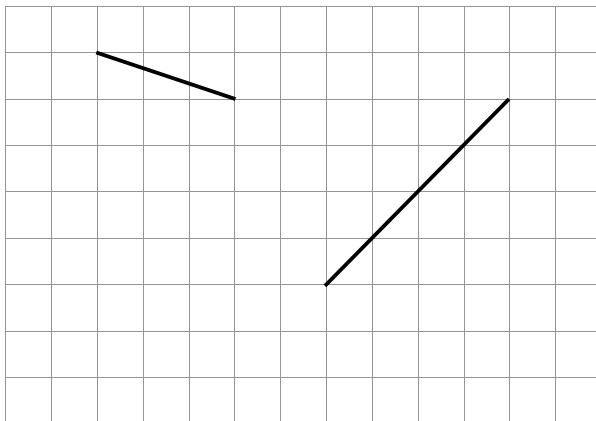
Date _____

1. On each object, trace at least one pair of lines that appear to be perpendicular.



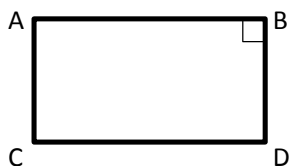
2. How do you know if two lines are perpendicular?

3. In the square and triangular grids below, use the given segments in each grid to draw a segment that is perpendicular using a straightedge.

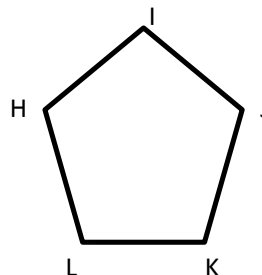


4. Determine which of the following figures have a right angle. Mark each right angle with a small square.
(Problem 4(a) has been started for you.)

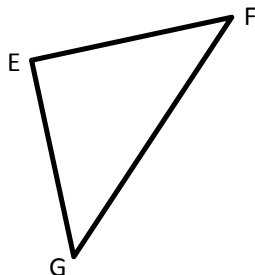
a.



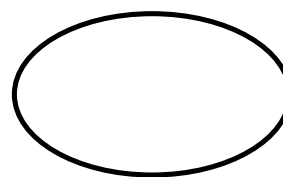
b.



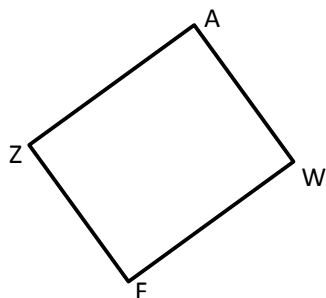
c.



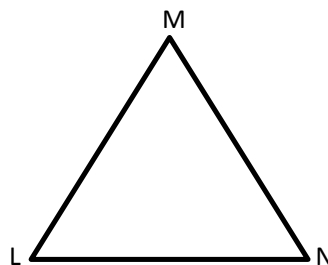
d.



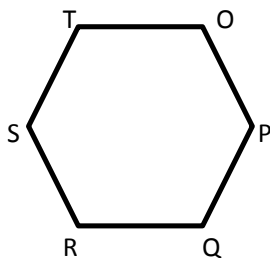
e.



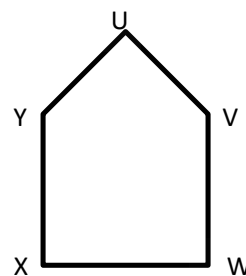
f.



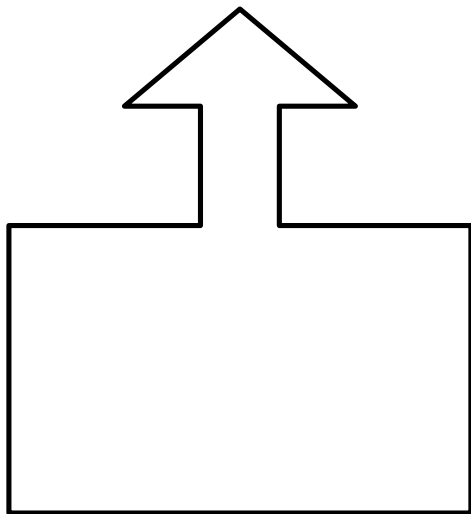
g.



h.



5. Mark each right angle in the following figure with a small square. (Note: A right angle does not have to be inside the figure.) How many pairs of perpendicular sides does this figure have?

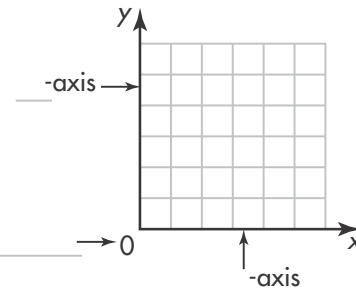


6. True or false? Shapes that have no right angles also have no perpendicular segments. Draw some figures to help explain your thinking.

Vocabulary

1. In a **coordinate grid**, the **x-axis** is the horizontal axis and the **y-axis** is the vertical axis. The point where the two axes **intersect**, or cross, is called the **origin**.

Label the axes and the origin on the grid at the right.



2. An **ordered pair** is used to locate a point in a plane. The first number is the **x-coordinate**, and the second number is the **y-coordinate**.

(3, 2)
 ↙ ↘
 x-coordinate y-coordinate

The x-coordinate, 3, tells the distance from the origin along the _____-axis.

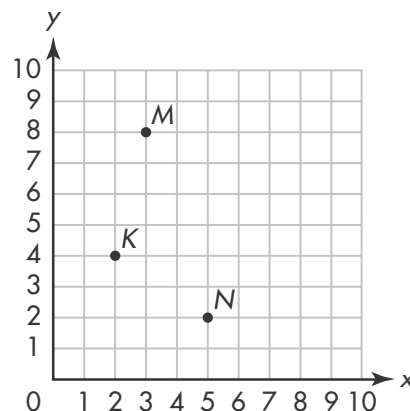
The y-coordinate, 2, tells the distance from the origin along the _____-axis.

3. Find the ordered pair for Point *K* shown at the right.

Start at the origin and move right until you are directly under Point *K*. What is the number on the x-axis?

Start at the origin and move up until you are directly across from Point *K*. What is the number on the y-axis?

The ordered pair (*x*, *y*) for Point *K* is (_____, _____).



4. Find the ordered pair for Point *M* on the grid.

Start at (_____, _____). Move _____ units to the right along the x-axis. Then move _____ units up to Point *M*.

The x-coordinate is _____. The y-coordinate is _____.

So, the ordered pair for Point *M* is (_____, _____).

On the Back!

5. Write the ordered pair for Point *N* on the grid. Explain how to find the ordered pair for this point.

★ Guided Practice ★

Do You Understand?

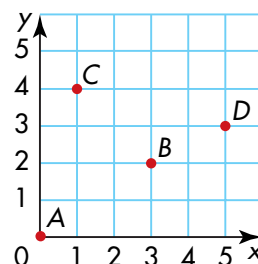
1. You are graphing Point E at $(0, 5)$. Do you move to the right zero units, or up zero units? Explain.
2. **A-Z Vocabulary** What ordered pair names the origin of any coordinate grid?
3. **MP.6 Be Precise** Describe how to graph Point K at $(5, 4)$.

Do You Know How?

In **4** and **5**, write the ordered pair for each point. Use the grid.

4. B

5. A



In **6** and **7**, name the point for each ordered pair on the grid above.

6. $(5, 3)$

7. $(1, 4)$

★ Independent Practice ★

In **8–13**, write the ordered pair for each point. Use the grid.

8. T

9. X

10. Y

11. W

12. Z

13. S

In **14–18**, name the point for each ordered pair on the grid above.

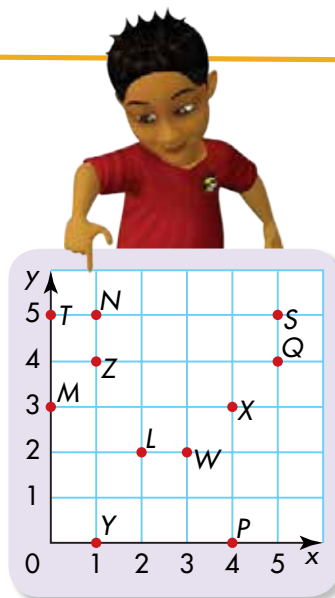
14. $(2, 2)$

15. $(5, 4)$

16. $(1, 5)$

17. $(0, 3)$

18. $(4, 0)$





Additional Practice 14-1

The Coordinate System

Another Look!

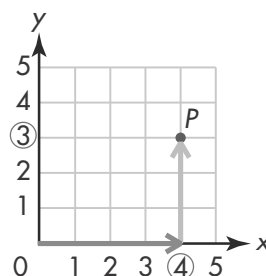
Point P gives the location of the playground. Find the coordinates of Point P .



Start at $(0, 0)$. Move a distance of 4 units to the right along the x -axis.

Move a distance of 3 units up.

The coordinates of Point P are $(4, 3)$.



In 1–6, write the ordered pair for each point on the grid.

1. A

2. B

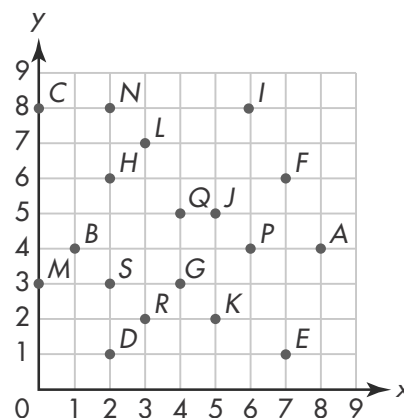
3. C

4. D

5. E

6. F

In 7–18, name the point that is located at each ordered pair.



7. $(4, 3)$ Point _____

8. $(3, 7)$ Point _____

9. $(0, 3)$ Point _____

10. $(5, 2)$ Point _____

11. $(6, 8)$ Point _____

12. $(6, 4)$ Point _____

13. $(4, 5)$ Point _____

14. $(2, 8)$ Point _____

15. $(5, 5)$ Point _____

16. $(2, 6)$ Point _____

17. $(2, 3)$ Point _____

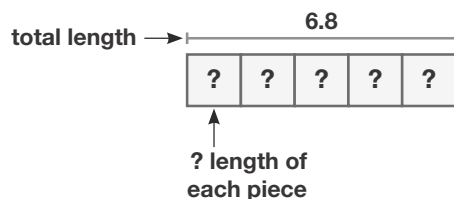
18. $(3, 2)$ Point _____



19. Describe to a friend how to graph a point at (2, 5).

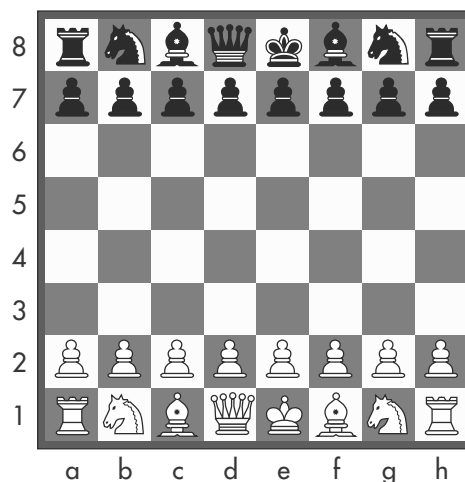
20. **Reasoning** How are the locations on a coordinate grid different for the ordered pairs (7, 0) and (0, 7)?

21. Steven cut a wire into 5 equal pieces. He started with a wire that was 6.8 meters long. How many meters long was each piece that Steven cut? Use the bar diagram to help you.



In 22 and 23, use the chessboard.

22. **Higher Order Thinking** A chessboard is similar to a coordinate grid. The pieces that look like horses are knights. What letter-number combinations name the locations of the white knights?
23. Andre moves the pawn located at (e, 7) down 2 units. What letter-number combination names the pawn's new location? Explain.



Assessment Practice

24. Point *D* is 2 units away from the origin along the *x*-axis and 4 units away along the *y*-axis.

What could be the coordinates of Point *D*?

- (A) (4, 2)
- (B) (2, 2)
- (C) (2, 4)
- (D) (6, 0)

Additional Practice 14-2

Graph Data Using Ordered Pairs

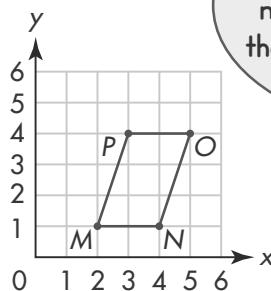
Another Look!

Graph the following four points and connect them to form a parallelogram.

$M(2, 1)$ $N(4, 1)$ $O(5, 4)$ $P(3, 4)$

Graph $(2, 1)$ first. Start at $(0, 0)$.
Move 2 units to the right from the y -axis.
Then move one unit up. Draw a dot to represent $(2, 1)$ and label the point M .

Graph the remaining 3 points in the same way. Then draw line segments between the points to form a parallelogram.



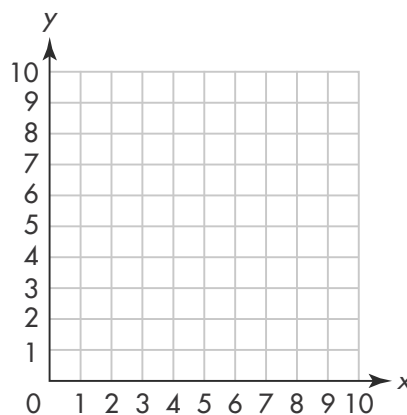
Remember that the first number in an ordered pair names the x -coordinate and the second number names the y -coordinate.



1. Explain to a friend how to graph the point $(1, 5)$.

In **2–13**, graph and label each point on the grid at the right.

- | | |
|---------------|---------------|
| 2. $A(1, 2)$ | 3. $B(0, 7)$ |
| 4. $C(3, 3)$ | 5. $D(8, 9)$ |
| 6. $E(6, 0)$ | 7. $F(5, 4)$ |
| 8. $G(2, 8)$ | 9. $H(1, 6)$ |
| 10. $I(7, 4)$ | 11. $J(0, 0)$ |
| 12. $K(1, 4)$ | 13. $L(4, 1)$ |



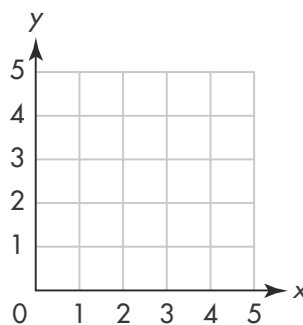
14. Explain the difference in how you graphed points K and L on the coordinate grid.



15. Graph the points below on the grid at the right.

$D(1, 1)$ $E(4, 1)$ $F(3, 3)$ $G(2, 3)$

16. Kimberly wants to draw line segments to connect the points to form a shape. What would be the most appropriate tool for her to use?



17. What is the name of the shape Kimberly forms by connecting the points? Be as specific as possible.

18. **Critique Reasoning** Franco said that $5 + 2 \times 30 = 210$. Is he correct? Explain.

19. At a ski lift, 47 people are waiting to board cars. Each car can hold 6 people. How many cars will be completely filled? How many people are left to board the last car?

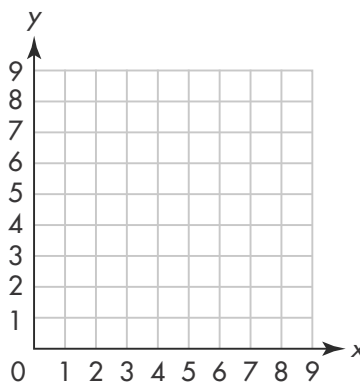
20. **Higher Order Thinking** One side of a rectangle is parallel to the x-axis. One vertex of the rectangle is located at $(5, 2)$ and another vertex at $(1, 4)$. What are the coordinates of the other two vertices?

21. Andi needs $5\frac{1}{2}$ yards of fabric for a project. She has a piece that is $3\frac{1}{4}$ yards at school and a piece that is $1\frac{1}{2}$ yards at home. How much more fabric does she need?



Assessment Practice

22. Connor visits the following locations: museum at $M(4, 0)$, sports center at $S(5, 2)$, and bookstore at $B(7, 8)$. Graph and label each location on the grid at the right.



Name _____

Date _____

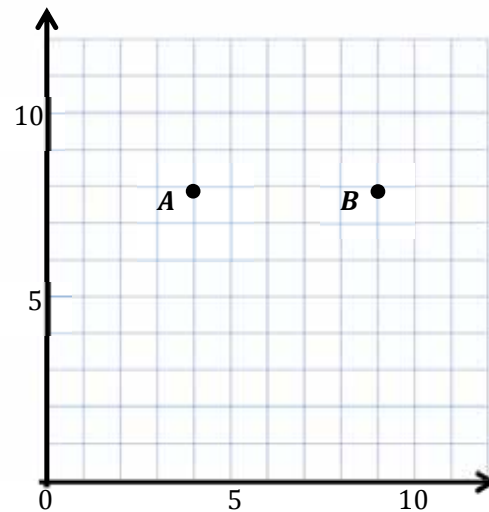
1. Use the coordinate plane to answer the questions.

- Use a straightedge to construct a line that goes through points A and B . Label the line g .
- Line g is parallel to the _____-axis and is perpendicular to the _____-axis.
- Draw two more points on line g . Name them C and D .
- Give the coordinates of each point below.

A : _____ B : _____

C : _____ D : _____

- What do all of the points on line g have in common?



- Give the coordinates of another point that falls on line g with an x -coordinate greater than 25.

2. Plot the following points on the coordinate plane to the right.

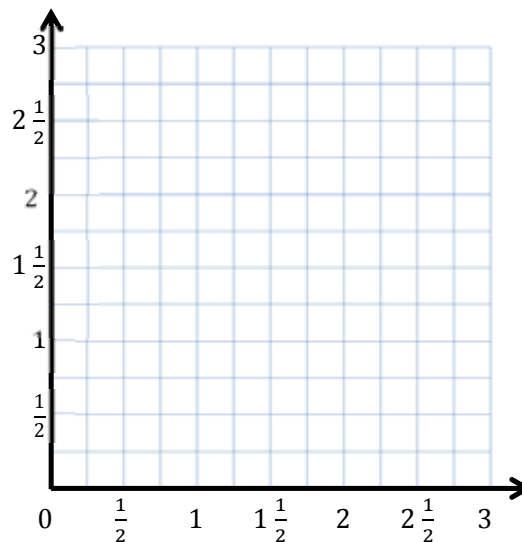
$H: (\frac{3}{4}, 3)$ $I: (\frac{3}{4}, 2\frac{1}{4})$

$J: (\frac{3}{4}, \frac{1}{2})$ $K: (\frac{3}{4}, 1\frac{3}{4})$

- Use a straightedge to draw a line to connect these points. Label the line f .
- In line f , $x =$ _____ for all values of y .
- Circle the correct word:

Line f is *parallel* *perpendicular* to the x -axis.

Line f is *parallel* *perpendicular* to the y -axis.



- What pattern occurs in the coordinate pairs that make line f vertical?



Lesson 5:

Date:

Investigate patterns in vertical and horizontal lines, and interpret points on the plane as distances from the axes.

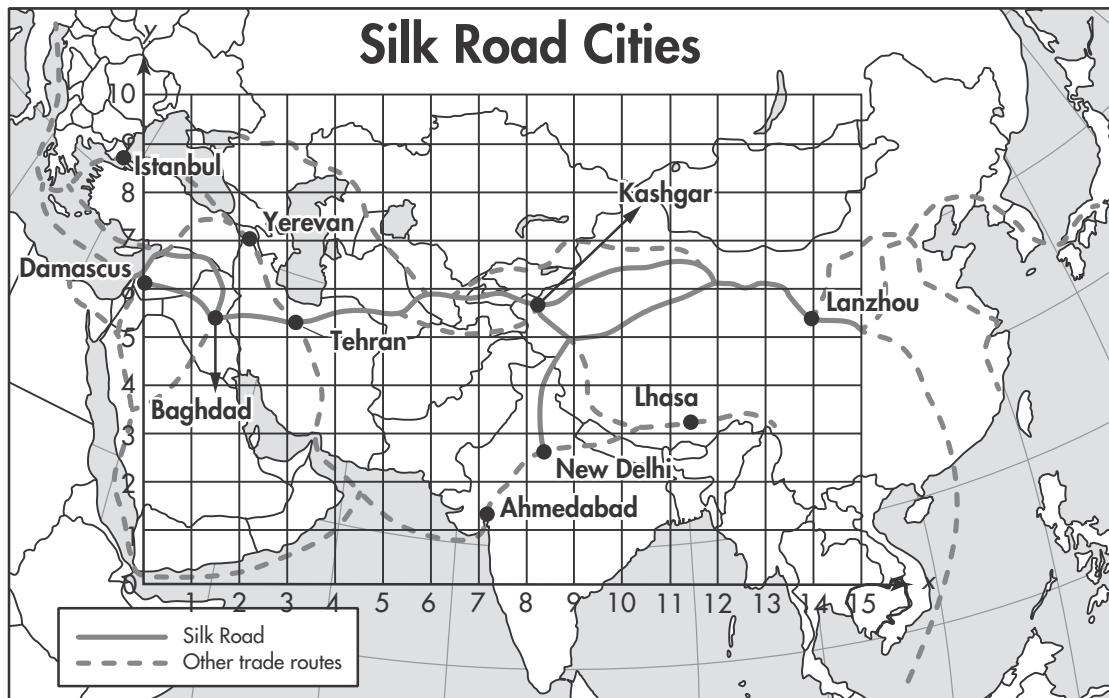
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engage^{ny}

6.A.62

Cities on the Silk Road

Some cities that were on the Silk Road and related trade routes still exist today. The map shows the locations of some of these cities along the routes.



Name the city that is closest to each point.

1. (0, 7) _____

2. (14, 5) _____

3. (7, 1) _____

4. (2, 7) _____

5. (12, 3) _____

6. (3, 5) _____

7. (8, 6) _____

8. (0, 9) _____

9. (2, 5) _____

10. (8, 3) _____