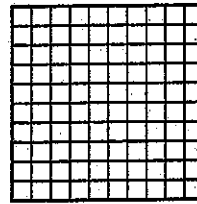


Name _____

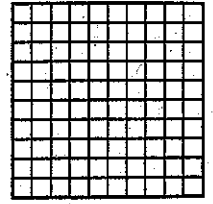
Share and Show 

1. Compare 0.39 and 0.42. Write $<$, $>$, or $=$.
Shade the model to help.

0.39 ○ 0.42



0.39



0.42

Compare. Write $<$, $>$, or $=$.

2. 0.26 ○ 0.23

Ones	Tenths	Hundredths

3. 0.7 ○ 0.54

Ones	Tenths	Hundredths

4. 1.15 ○ 1.3

Ones	Tenths	Hundredths

5. 4.5 ○ 2.89

Ones	Tenths	Hundredths

On Your Own

Compare. Write $<$, $>$, or $=$.

6. 0.9 ○ 0.81

7. 1.06 ○ 0.6

8. 0.25 ○ 0.3

9. 2.61 ○ 3.29



MATHEMATICAL PRACTICES 2

Reason Abstractly Can you compare 0.39 and 0.42 by comparing only the tenths? Explain.

MATHEMATICAL PRACTICE 2 Reason Quantitatively Compare. Write $<$, $>$, or $=$.

10. 0.30 ○ $\frac{3}{10}$

11. $\frac{4}{100}$ ○ 0.2

12. 0.15 ○ $\frac{1}{10}$

13. $\frac{1}{8}$ ○ 0.8

14. **DEEPER** Robert had \$14.53 in his pocket. Ivan had \$14.25 in his pocket. Matt had \$14.40 in his pocket. Who had more money, Robert or Matt? Did Ivan have more money than either Robert or Matt?

Name _____

Compare Decimals



COMMON CORE STANDARDS—4.NF.C.7
Understand decimal notation for fractions,
and compare decimal fractions.

Compare. Write $<$, $>$, or $=$.

1. $0.35 < 0.53$

2. $0.6 \bigcirc 0.60$

3. $0.24 \bigcirc 0.31$

Think: 3 tenths is less
than 5 tenths.
So, $0.35 < 0.53$

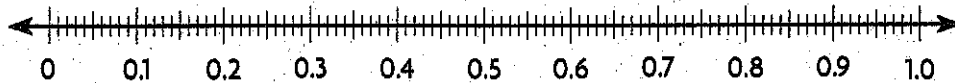
4. $0.94 \bigcirc 0.9$

5. $0.3 \bigcirc 0.32$

6. $0.45 \bigcirc 0.28$

7. $0.39 \bigcirc 0.93$

Use the number line to compare. Write *true* or *false*.



8. $0.8 > 0.78$

9. $0.4 > 0.84$

10. $0.7 < 0.70$

11. $0.4 > 0.04$

Compare. Write *true* or *false*.

12. $0.09 > 0.1$

13. $0.24 = 0.42$

14. $0.17 < 0.32$

15. $0.85 > 0.82$

Problem Solving



16. Kelly walks 0.7 mile to school. Mary walks 0.49 mile to school. Write an inequality using $<$, $>$, or $=$ to compare the distances they walk to school.

17. ~~WRITE Math Show or describe two different ways to complete the comparison using $<$, $>$, or $=$: $0.26 \bigcirc 0.4$~~

Name _____

Lines, Rays, and Angles



Geometry—
4.G.A.1

MATHEMATICAL PRACTICES
MP4, MP6

Unlock the Problem Real World

Everyday things can model geometric figures. For example, the period at the end of this sentence models a point. A solid painted stripe in the middle of a straight road models a line.

Term and Definition	Draw It	Read It	Write It	Example
A point is an exact location in space.	$A \bullet$	point A	point A	
A line is a straight path of points that continues without end in both directions.		line BC line CB	\overleftrightarrow{BC} \overleftrightarrow{CB}	
A line segment is part of a line between two endpoints.		line segment DE line segment ED	\overline{DE} \overline{ED}	
A ray is a part of a line that has one endpoint and continues without end in one direction.		ray FG	\overrightarrow{FG}	

Activity 1 Draw and label \overline{JK} .

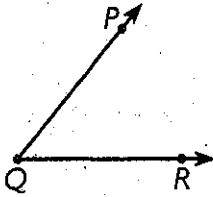



MATHEMATICAL PRACTICES **6**

Compare Explain how lines, line segments, and rays are related.

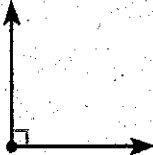

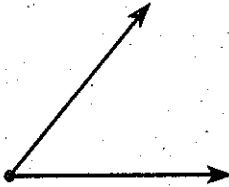
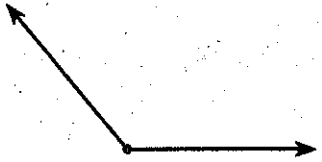
- Is there another way to name \overline{JK} ? Explain.

Angles

Term and Definition	Draw It	Read It	Write It	Example
An angle is formed by two rays or line segments that have the same endpoint. The shared endpoint is called the vertex.		angle PQR angle RQP angle Q	$\angle PQR$ $\angle RQP$ $\angle Q$	

You can name an angle by the vertex. When you name an angle using 3 points, the vertex is always the point in the middle.

Angles are classified by the size of the opening between the rays.

<p>A right angle forms a square corner.</p> 	<p>A straight angle forms a line.</p> 	<p>An acute angle is less than a right angle.</p> 	<p>An obtuse angle is greater than a right angle and less than a straight angle.</p> 
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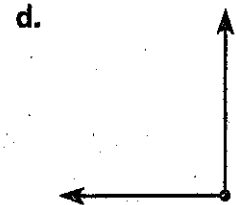
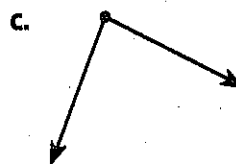
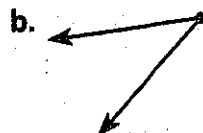
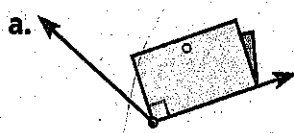
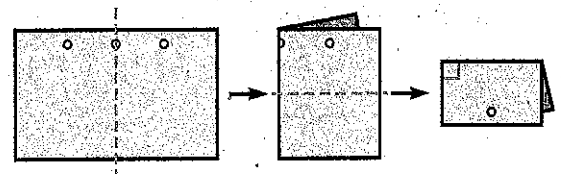
Activity 2 Classify an angle.

Materials ■ paper

To classify an angle, you can compare it to a right angle.

Make a right angle by using a sheet of paper. Fold the paper twice evenly to model a right angle. Use the right angle to classify the angles below.

Write *acute*, *obtuse*, *right*, or *straight*.



Name _____

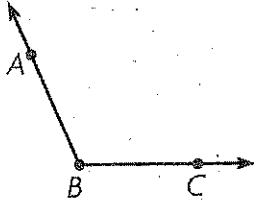
Lines, Rays, and Angles



COMMON CORE STANDARD—4.G.A.1
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Draw and label an example of the figure.

1. obtuse $\angle ABC$



Think: An obtuse angle is greater than a right angle. The middle letter, B, names the vertex of the angle.

2. \overleftrightarrow{GH}

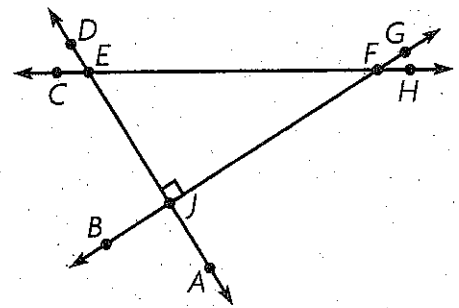
3. acute $\angle JKL$

4. \overline{BC}

Use the figure for 5-6.

5. Name a line segment.

6. Name a right angle.



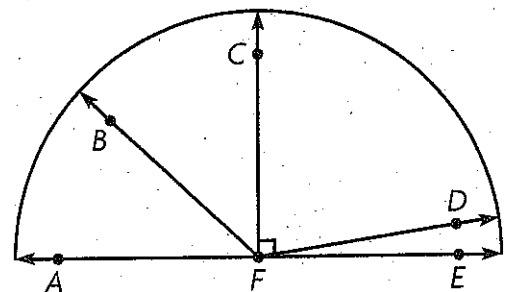
Problem Solving *Real World*

Use the figure at the right for 7-9.

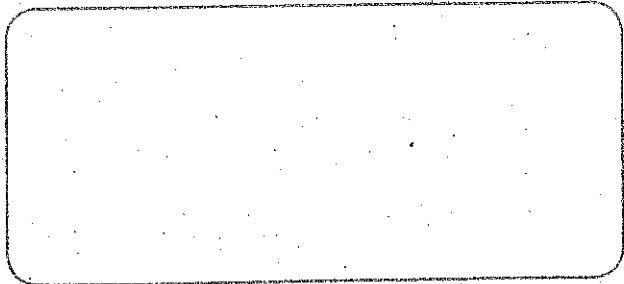
7. Classify $\angle AFD$. _____

8. Classify $\angle CFE$. _____

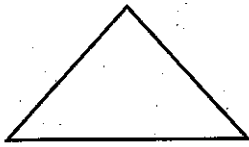
9. Name two acute angles.



10. **WRITE** *Math* Draw and label a figure that has 4 points, 2 rays, and 1 right angle.

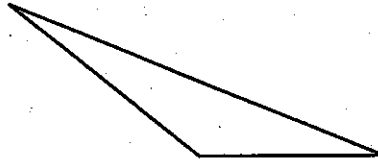


An **acute triangle** is a triangle with three acute angles.



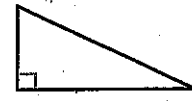
Acute Triangle

An **obtuse triangle** is a triangle with one obtuse angle.



Obtuse Triangle

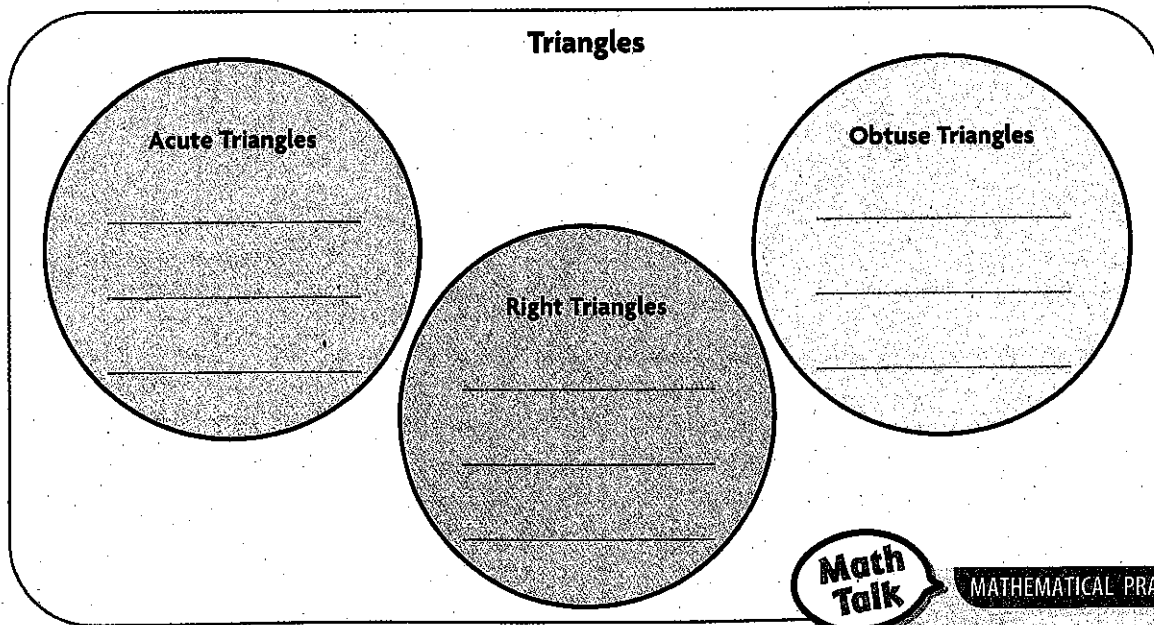
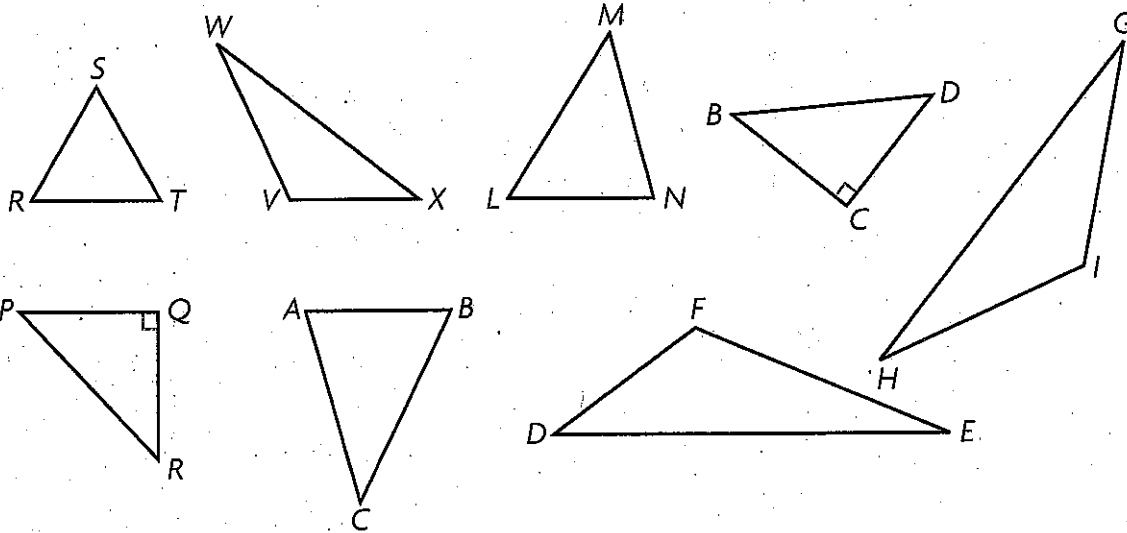
A **right triangle** is a triangle with one right angle.



Right Triangle

Activity 2 Use a Venn diagram to classify triangles.

Write the names of the triangles in the Venn diagram.



Math Talk

MATHEMATICAL PRACTICES 4

Interpret a Result Explain why the three circles in this Venn diagram do not overlap.

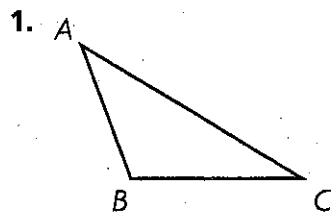
Name _____

Classify Triangles by Angles



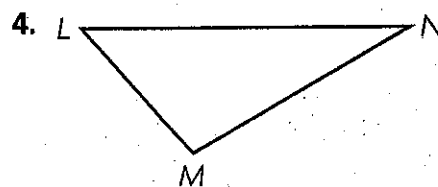
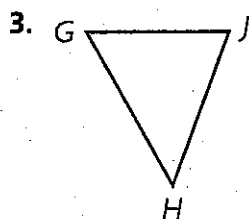
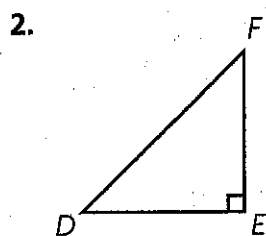
COMMON CORE STANDARD—4.G.A.2
Draw and identify lines and angles and classify shapes by properties of their lines and angles.

Classify each triangle. Write *acute*, *right*, or *obtuse*.



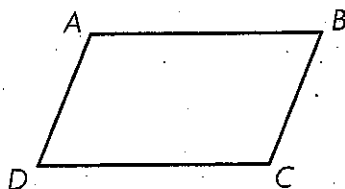
Think: Angles A and C are both acute.
Angle B is obtuse.

obtuse



Problem Solving

5. Use figure $ABCD$ below. Draw a line segment from point B to point D . Name and classify the triangles formed.



6. **WRITE** *Math* Draw and label an example of a right triangle, an acute triangle, and an obtuse triangle.

Name _____

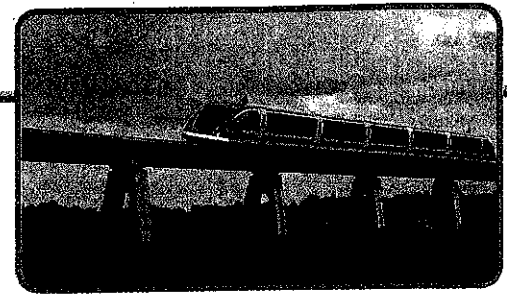
Parallel Lines and Perpendicular Lines

Essential Question How can you identify and draw parallel lines and perpendicular lines?



Geometry—
4.G.A.1

MATHEMATICAL PRACTICES
MP4, MP6, MP7



▲ Maglev trains use magnets to lift them above the tracks while moving.

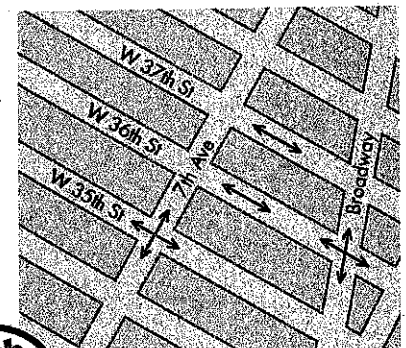
Unlock the Problem

You can find models of lines in the world around you. For example, two streets that cross each other model intersecting lines. Metal rails on a train track that never cross model parallel lines.

Term and Definition	Draw It	Read It	Write It
Intersecting lines are lines in a plane that cross at exactly one point. Intersecting lines form four angles.		Line HJ intersects line JK at point X .	\vec{HI} and \vec{JK} intersect at point X .
Parallel lines are lines in a plane that are always the same distance apart. Parallel lines never intersect.		Line DE is parallel to line FG .	$\vec{DE} \parallel \vec{FG}$ The symbol \parallel means "is parallel to."
Perpendicular lines are lines in a plane that intersect to form four right angles.		Line LM is perpendicular to line NO .	$\vec{LM} \perp \vec{NO}$ The symbol \perp means "is perpendicular to."

Try This! Tell how the streets appear to be related. Write *perpendicular*, *parallel*, or *intersecting*.

- W 36th St and Broadway _____
- W 35th St and 7th Ave _____
- W 37th St and W 36th St _____



Math Talk

MATHEMATICAL PRACTICES 6

Use Math Vocabulary
Can two rays be parallel?
Explain.

Name _____

Parallel Lines and Perpendicular Lines



COMMON CORE STANDARD—4.G.A.1
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

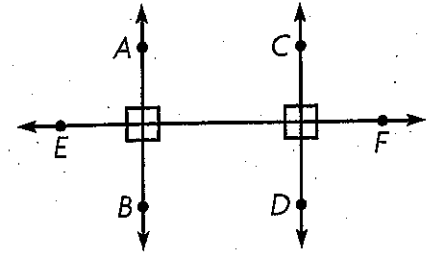
Use the figure for 1-2.

1. Name a pair of lines that appear to be perpendicular.

Think: Perpendicular lines form right angles.
 \overleftrightarrow{AB} and \overleftrightarrow{EF} appear to form right angles.

\overleftrightarrow{AB} and \overleftrightarrow{EF}

2. Name a pair of lines that appear to be parallel.



Draw and label the figure described.

3. \overleftrightarrow{MN} and \overleftrightarrow{PQ} intersecting at point R
4. $\overleftrightarrow{WX} \parallel \overleftrightarrow{YZ}$
5. $\overleftrightarrow{FH} \perp \overleftrightarrow{JK}$

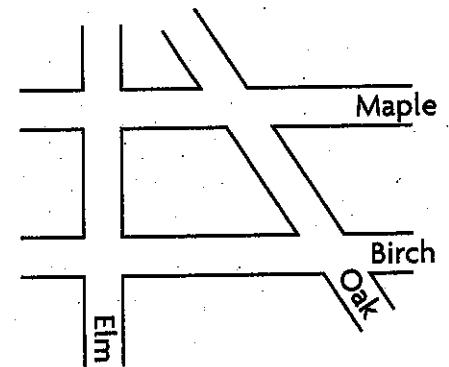
Problem Solving



Use the street map for 6-7.

6. Name two streets that intersect but do not appear to be perpendicular.

7. Name two streets that appear to be parallel to each other.



8. **WRITE** *Math* Draw and label an example of two parallel lines that are perpendicular to a third line.