

Lesson 9.7

Name _____

Compare Decimals

COMMON CORE STANDARDS CC.4.NF.7

Understand decimal notation for fractions, and compare decimal fractions.

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

1. $0.35 \text{ } \text{<} \text{ } 0.53$

2. $0.6 \text{ } \text{ } \text{ } 0.60$

3. $0.24 \text{ } \text{ } \text{ } 0.31$

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

4. $0.94 \text{ } \text{ } \text{ } 0.9$

5. $0.3 \text{ } \text{ } \text{ } 0.32$

6. $0.45 \text{ } \text{ } \text{ } 0.28$

7. $0.39 \text{ } \text{ } \text{ } 0.93$

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 REAL WORLD

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. Tyrone shades two decimal grids. He shades 0.03 of the squares on one grid blue. He shades 0.3 of another grid red. Which grid has the greater part shaded?

Lesson Check (CC.4.NF.7)

- Bob, Cal, and Pete each made a stack of baseball cards. Bob's stack was 0.2 meter high. Cal's stack was 0.24 meter high. Pete's stack was 0.18 meter high. Which statement is true?
 (A) $0.2 > 0.24$
 (B) $0.24 > 0.18$
 (C) $0.18 > 0.2$
 (D) $0.24 = 0.2$
- Three classmates spent money at the school supplies store. Mark spent 0.5 dollar, Andre spent 0.45 dollar, and Raquel spent 0.52 dollar. Which statement is true?
 (A) $0.45 > 0.5$
 (B) $0.52 < 0.45$
 (C) $0.5 = 0.52$
 (D) $0.45 < 0.5$

Spiral Review (CC.4.NF.3c, CC.4.NF.4c, CC.4.NF.5)

- Pedro has \$0.35 in his pocket. Alice has \$0.40 in her pocket. How much money do Pedro and Alice have in their pockets altogether? (Lesson 9.6)
 (A) \$0.05
 (B) \$0.39
 (C) \$0.75
 (D) \$0.79
- The measure 62 centimeters is equivalent to $\frac{62}{100}$ meter. What is this measure written as a decimal? (Lesson 9.3)
 (A) 62.0 meters
 (B) 6.2 meters
 (C) 0.62 meter
 (D) 0.6 meter
- Joel has 24 sports trophies. Of the trophies, $\frac{1}{8}$ are soccer trophies. How many soccer trophies does Joel have? (Lesson 8.4)
 (A) 2
 (B) 3
 (C) 4
 (D) 6
- Molly's jump rope is $6\frac{1}{3}$ feet long. Gail's jump rope is $4\frac{2}{3}$ feet long. How much longer is Molly's jump rope? (Lesson 7.8)
 (A) $1\frac{1}{3}$ feet
 (B) $1\frac{2}{3}$ feet
 (C) $2\frac{1}{3}$ feet
 (D) $2\frac{2}{3}$ feet

Name _____

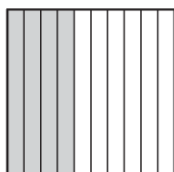
COMMON CORE STANDARDS CC.4.NF.5, CC.4.NF.6, CC.4.NF.7,
CC.4.MD.2

Chapter 9 Extra Practice

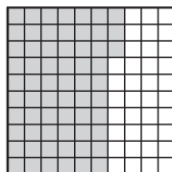
Lessons 9.1 - 9.2

Write the fraction or mixed number and the decimal shown by the model.

1.



2.



3.



Lesson 9.3

Write the number as hundredths in fraction form and decimal form.

1. $\frac{8}{10}$

2. 0.1

3. $\frac{3}{10}$

Write the number as tenths in fraction form and decimal form.

4. $\frac{60}{100}$

5. $\frac{70}{100}$

6. 0.20

Lesson 9.4

Write as a money amount and as a decimal in terms of dollars.

1. $\frac{30}{100}$

2. $\frac{91}{100}$

3. $\frac{5}{100}$

Write the total money amount. Then write the amount as a fraction and as a decimal in terms of dollars.

4. 4 dimes, 9 pennies

5. 3 quarters, 1 dime

6. 7 nickels, 2 pennies

Lesson 9.5

1. Camila, Jocelyn, and Audrey each earned \$2.55. How much did the three girls earn altogether?

2. Elijah, Xavier, and Adrian earned a total of \$8.34. The boys shared the earnings equally. How much did each boy get?

3. Anthony saves \$7 each week. In how many weeks will he have saved at least \$40?

4. Brianna has \$2 less than Victoria. Victoria has \$11 more than Damian. Damian has \$6. How much money do they have in all?

Lesson 9.6

Find the sum.

1. $\frac{6}{10} + \frac{39}{100}$

2. $\frac{14}{100} + \frac{8}{10}$

3. $\frac{4}{10} + \frac{18}{100}$

4. $\frac{5}{10} + \frac{16}{100}$

5. \$0.43 + \$0.20

6. \$0.07 + \$0.35

7. \$0.80 + \$0.15

8. \$0.52 + \$0.28

Lesson 9.7

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

1. $0.3 \bigcirc 0.39$
2. $0.9 \bigcirc 0.90$
3. $0.54 \bigcirc 0.45$
4. $0.04 \bigcirc 0.06$
5. $0.7 \bigcirc 0.70$
6. $0.36 \bigcirc 0.51$
7. $0.8 \bigcirc 0.67$
8. $0.63 \bigcirc 0.48$

Compare. Write *true* or *false*.

9. $0.32 > 0.23$

10. $0.86 = 0.9$

11. $0.68 < 0.83$

12. $0.97 > 0.94$

School-Home Letter

Dear Family,

Throughout the next few weeks, our math class will be studying two-dimensional figures. The students will use definitions to identify and describe characteristics of these figures.

You can expect to see homework that includes identifying types of triangles and quadrilaterals.

Here is a sample of how your child will be taught to classify a triangle by its angles.

Vocabulary

acute triangle A triangle with three acute angles

line segment A part of a line that includes two points, called endpoints, and all the points between them

obtuse triangle A triangle with one obtuse angle

ray A part of a line, with one endpoint, that is straight and continues in one direction

right triangle A triangle with one right angle and two acute angles



MODEL

Classify a triangle by the sizes of its angles.

Classify triangle KLM .

STEP 1

Determine how many angles are acute.

$\angle K$ is acute.

$\angle L$ is acute.

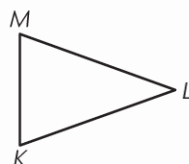
$\angle M$ is acute.

STEP 2

Determine the correct classification.

A triangle with 3 acute angles is

acute.



Tips

Angle sizes

Angles are classified by the size of the opening between the rays. A right angle forms a square corner. An acute angle is less than a right angle. An obtuse angle is greater than a right angle and less than a straight angle.

To classify angles in a figure, use the corner of an index card as a right angle and compare.

Activity

Help your child commit most of the classifications of triangles and quadrilaterals to memory. Together, you can make a series of flash cards with the classifications on one side of the card and definitions and/or sketches of examples on the other side of the card.

Carta para la casa

Querida familia,

Durante las próximas semanas, en la clase de matemáticas estudiaremos las figuras bidimensionales. Usaremos las definiciones para identificar y describir las características de esas figuras.

Llevaré a la casa tareas con actividades para identificar diferentes tipos de triángulos y cuadriláteros.

Este es un ejemplo de la manera como aprenderemos a clasificar un triángulo por sus ángulos.

Vocabulario

triángulo agudo Un triángulo que tiene tres ángulos agudos

segmento de recta Una parte de una línea que incluye dos puntos, llamados extremos, y los puntos que están entre ellos

triángulo obtuso Un triángulo que tiene un ángulo obtuso

rayo Parte de una línea recta, con un extremo y que continúa en una dirección

triángulo rectángulo Un triángulo con un ángulo recto y dos ángulos agudos



MODELO

Clasificar un triángulo por el tamaño de sus lados

Clasifica el triángulo KLM .

PASO 1

Identifica cuántos ángulos son agudos.

$\angle K$ es agudo.

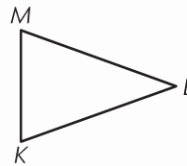
$\angle L$ es agudo.

$\angle M$ es agudo.

PASO 2

Determina la clasificación correcta.

Un triángulo con 3 ángulos agudos, entonces es acutángulo.



Pistas

Tipos de ángulos

Los ángulos se clasifican según el tamaño de la abertura entre sus rayos. Un ángulo recto forma una esquina recta. Un ángulo agudo mide menos que un ángulo recto. Un ángulo obtuso mide más que un ángulo recto y menos que un ángulo llano.

Para clasificar los ángulos de una figura, usa la esquina de una tarjeta como modelo de ángulo recto y compara.

Actividad

Anime a su hijo a memorizar las clasificaciones de los triángulos y los cuadriláteros. Puede hacer tarjetas nemotécnicas con las clasificaciones en un lado y las definiciones y/o ejemplos visuales en el otro lado de cada tarjeta.

Lesson 10.1

Name _____

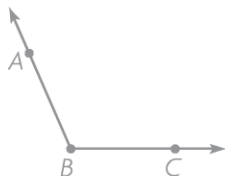
Lines, Rays, and Angles

COMMON CORE STANDARD CC.4.G.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. \overrightarrow{GH}

3. acute $\angle JKL$

4. \overline{BC}

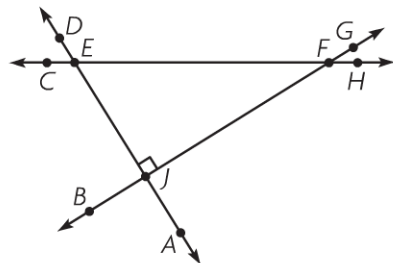
Use the figure for 5–8.

5. Name a line segment.

6. Name a right angle.

7. Name an obtuse angle.

8. Name a ray.



Problem Solving

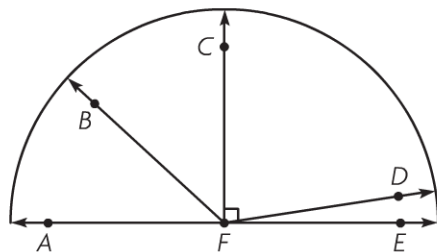


Use the figure at the right for 9–11.

9. Classify $\angle AFD$. _____

10. Classify $\angle CFE$. _____

11. Name two acute angles.



Lesson Check (CC.4.G.1)

1. The hands of a clock show the time 12:25.



Which best describes the angle between the hands of the clock?

- (A) acute (C) obtuse
(B) right (D) straight

2. Which of the following name two different figures?

- (A) \overline{AB} and \overline{BA}
(B) \overrightarrow{AB} and \overrightarrow{BA}
(C) \overleftrightarrow{AB} and \overleftrightarrow{BA}
(D) $\angle ABC$ and $\angle CBA$

Spiral Review (CC.4.NF.3c, CC.4.NF.6, CC.4.NF.7, CC.4.MD.2)

3. Jan's pencil is 8.5 cm long. Ted's pencil is longer. Which could be the length of Ted's pencil? (Lesson 9.7)

- (A) 0.09 cm
(B) 0.8 cm
(C) 8.4 cm
(D) 9.0 cm

4. Kayla buys a shirt for \$8.19. She pays with a \$10 bill. How much change should she receive? (Lesson 9.5)

- (A) \$1.81
(B) \$1.89
(C) \$2.19
(D) \$2.81

5. Sasha donated $\frac{9}{100}$ of her class's entire can collection for the food drive. Which decimal is equivalent to $\frac{9}{100}$? (Lesson 9.2)

- (A) 9
(B) 0.99
(C) 0.9
(D) 0.09

6. Jose jumped $8\frac{1}{3}$ feet. This was $2\frac{2}{3}$ feet farther than Lila jumped. How far did Lila jump? (Lesson 7.8)

- (A) $5\frac{1}{3}$ feet
(B) $5\frac{2}{3}$ feet
(C) $6\frac{1}{3}$ feet
(D) 11 feet

Lesson 10.2

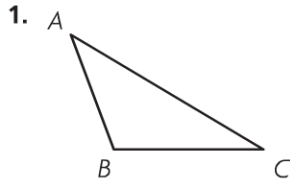
Name _____

Classify Triangles

COMMON CORE STANDARD CC.4.G.2

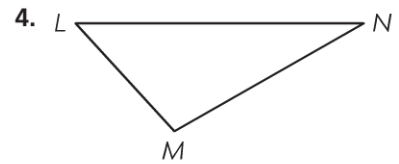
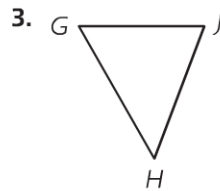
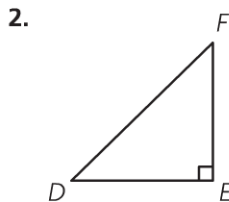
Draw and identify lines and angles and classify shapes by properties of their lines and angles.

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



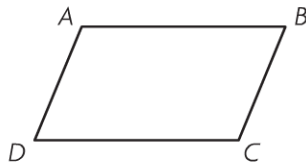
Think: Angles *A* and *C* are both acute.
Angle *B* is obtuse.

obtuse

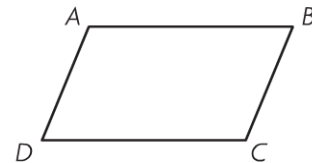


Problem Solving REAL WORLD

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

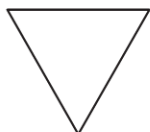


6. Use figure *ABCD* below. Draw a line segment from point *A* to point *C*. Name and classify the triangles formed.



Lesson Check (CC.4.G.2)

1. Stephen drew this triangle. How many obtuse angles does the triangle have?



- (A) 0 (C) 2
(B) 1 (D) 3

2. Joan was asked to draw a right triangle. How many right angles are in a right triangle?

- (A) 0
(B) 1
(C) 2
(D) 3

Spiral Review (CC.4.OA.4, CC.4.NBT.5, CC.4.NF.5, CC.4.G.1)

3. Oliver drew the figure below to show light traveling from the sun to Earth. Name the figure he drew. (Lesson 10.1)



- (A) segment SE (C) line SE
(B) ray SE (D) ray ES

4. Armon added $\frac{1}{10}$ and $\frac{8}{100}$. Which is the correct sum? (Lesson 9.6)

- (A) $\frac{18}{10}$
(B) $\frac{9}{10}$
(C) $\frac{9}{100}$
(D) $\frac{18}{100}$

5. Sam counted out loud by 6s. Jorge counted out loud by 8s. What are the first three numbers both students said? (Lesson 5.4)

- (A) 8, 16, 24
(B) 14, 28, 42
(C) 24, 48, 72
(D) 48, 96, 144

6. A basketball team averaged 105 points per game. How many points did the team score in 6 games? (Lesson 2.10)

- (A) 605 points
(B) 630 points
(C) 900 points
(D) 6,030 points

Lesson 10.3

Name _____

Parallel Lines and Perpendicular Lines

COMMON CORE STANDARD CC.4.G.1

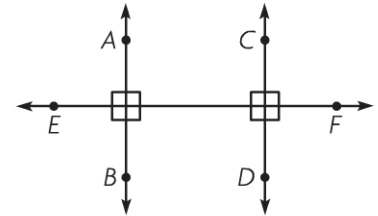
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Use the figure for 1–3.

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.

3. Name another pair of lines that appear to be perpendicular.

Draw and label the figure described.

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

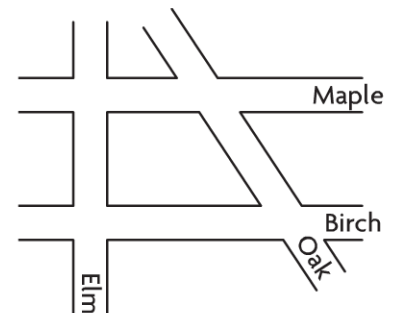
6. $\overleftrightarrow{FH} \perp \overleftrightarrow{JK}$

Problem Solving **REAL WORLD**

Use the street map for 7–8.

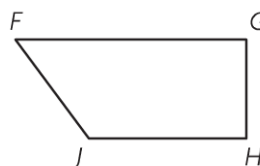
7. Name two streets that intersect but do not appear to be perpendicular.

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



Lesson Check (CC.4.G.1)

- Which capital letter appears to have perpendicular line segments?
 (A) N
 (B) O
 (C) T
 (D) V
- In the figure, which pair of line segments appear to be parallel?



- \overline{FG} and \overline{GH}
- \overline{FJ} and \overline{GH}
- \overline{FG} and \overline{JH}
- \overline{JH} and \overline{FJ}

Spiral Review (CC.4.NBT.5, CC.4.NBT.6, CC.4.NF.2, CC.4.G.2)

- Nolan drew a right triangle. How many acute angles did he draw? (Lesson 10.2)
 (A) 0
 (B) 1
 (C) 2
 (D) 3
- Mike drank more than half the juice in his glass. What fraction of the juice could Mike have drunk? (Lesson 6.6)
 (A) $\frac{1}{3}$
 (B) $\frac{2}{5}$
 (C) $\frac{3}{6}$
 (D) $\frac{5}{8}$
- A school principal ordered 1,000 pencils. He gave an equal number to each of 7 teachers until he had given out as many as possible. How many pencils were left? (Lesson 4.11)
 (A) 2
 (B) 4
 (C) 6
 (D) 142
- A carton of juice contains 64 ounces. Ms. Wilson bought 6 cartons of juice. How many ounces of juice did she buy? (Lesson 2.10)
 (A) 364 ounces
 (B) 370 ounces
 (C) 384 ounces
 (D) 402 ounces

Lesson 10.4

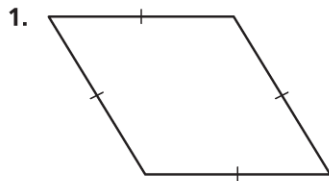
Name _____

Classify Quadrilaterals

COMMON CORE STANDARD CC.4.G.2

Draw and identify lines and angles and classify shapes by properties of their lines and angles.

Classify each figure as many ways as possible. Write *quadrilateral, trapezoid, parallelogram, rhombus, rectangle, or square*.

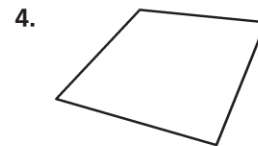


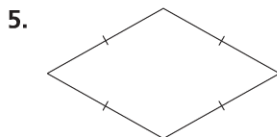
Think: 2 pairs of parallel sides
4 sides of equal length
0 right angles

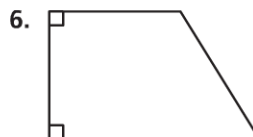
quadrilateral, parallelogram,
rhombus

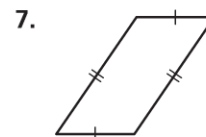












Problem Solving

REAL WORLD

8. Alan drew a polygon with four sides and four angles. All four sides are equal. None of the angles are right angles. What figure did Alan draw?

9. Teresa drew a quadrilateral with 2 pairs of parallel sides and 4 right angles. What quadrilateral could she have drawn?

Lesson Check (CC.4.G.2)

- Joey is asked to name a quadrilateral that is also a rhombus. What should be his answer?
 - (A) square
 - (B) rectangle
 - (C) parallelogram
 - (D) trapezoid
- Which quadrilateral has exactly one pair of parallel sides?
 - (A) square
 - (B) rhombus
 - (C) parallelogram
 - (D) trapezoid

Spiral Review (CC.4.OA.4, CC.4.OA.5, CC.4.NF.3d, CC.4.G.1)

- Terrence has 24 eggs to divide into equal groups. What are all the possible numbers of eggs that Terence could put in each group? (Lesson 5.2)
 - (A) 1, 2, 3, 4
 - (B) 2, 4, 6, 8, 12
 - (C) 1, 2, 3, 4, 6, 8, 12, 24
 - (D) 24, 48, 72, 96
- In a line of students, Jenna is number 8. The teacher says that a rule for a number pattern is *add 4*. The first student in line says the first term, 7. What number should Jenna say? (Lesson 5.6)
 - (A) 31
 - (B) 35
 - (C) 39
 - (D) 43
- Lou eats $\frac{6}{8}$ of a pizza. What fraction of the pizza is left over? (Lesson 7.5)
 - (A) $\frac{1}{8}$
 - (B) $\frac{1}{4}$
 - (C) $\frac{1}{2}$
 - (D) $\frac{3}{4}$
- Which capital letter appears to have parallel line segments? (Lesson 10.3)
 - (A) D
 - (B) L
 - (C) N
 - (D) T

Lesson 10.5

Name _____

Line Symmetry

COMMON CORE STANDARD CC.4.G.3

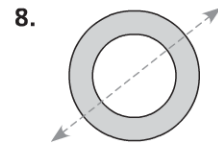
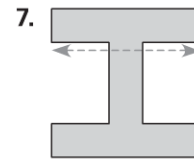
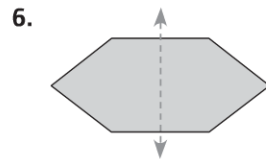
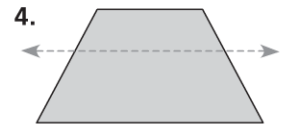
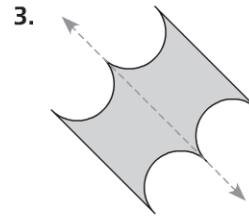
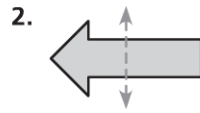
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Tell if the dashed line appears to be a line of symmetry.

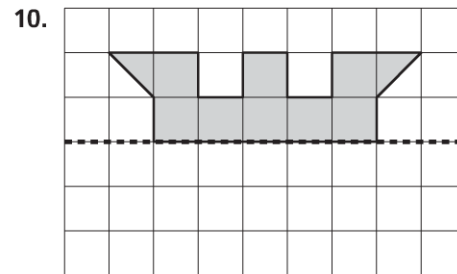
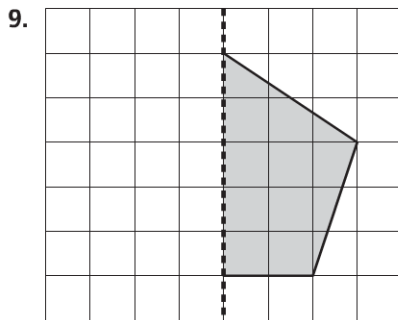
Write *yes* or *no*.



yes

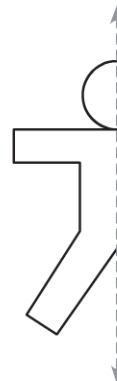


Complete the design by reflecting over the line of symmetry.



Problem Solving **REAL WORLD**

11. Kara uses the pattern at the right to make paper dolls. The dashed line represents a line of symmetry. A complete doll includes the reflection of the pattern over the line of symmetry. Complete the design to show what one of Kara's paper dolls looks like.



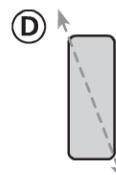
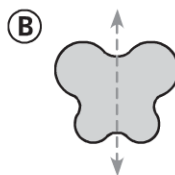
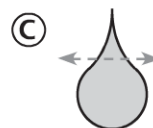
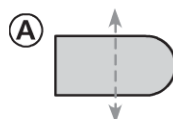
Lesson Check (CC.4.G.3)

1. Which best describes the line of symmetry in the letter D?



- (A) horizontal
- (B) vertical
- (C) diagonal
- (D) half turn

2. Which shape has a correctly drawn line of symmetry?



Spiral Review (CC.4.NBT.5, CC.4.NBT.6, CC.4.NF.2, CC.4.NF.4c)

3. The class has 360 unit cubes in a bag. Johnnie divides the unit cubes equally among 8 groups. How many unit cubes will each group get? (Lesson 4.11)
 - (A) 40
 - (B) 44
 - (C) 45
 - (D) 48
4. There are 5,280 feet in one mile. How many feet are there in 6 miles? (Lesson 2.11)
 - (A) 30,680
 - (B) 31,260
 - (C) 31,608
 - (D) 31,680
5. Sue has 4 pieces of wood. The lengths of her pieces of wood are $\frac{1}{3}$ foot, $\frac{2}{5}$ foot, $\frac{3}{10}$ foot, and $\frac{1}{4}$ foot. Which piece of wood is the shortest? (Lesson 6.7)
 - (A) the $\frac{1}{3}$ -foot piece
 - (B) the $\frac{2}{5}$ -foot piece
 - (C) the $\frac{3}{10}$ -foot piece
 - (D) the $\frac{1}{4}$ -foot piece
6. Alice has $\frac{1}{5}$ as many miniature cars as Sylvester has. Sylvester has 35 miniature cars. How many miniature cars does Alice have? (Lesson 8.5)
 - (A) 7
 - (B) 9
 - (C) 40
 - (D) 175

Lesson 10.6

Name _____

Find and Draw Lines of Symmetry

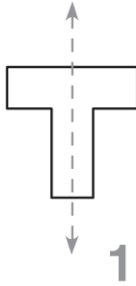
Tell whether the shape appears to have zero lines, 1 line, or more than 1 line of symmetry.

Write *zero*, *1*, or *more than 1*.

COMMON CORE STANDARD CC.4.G.3

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

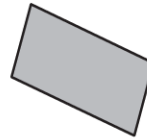
1.



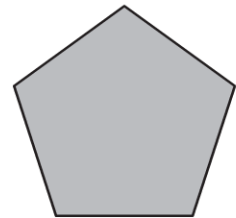
2.



3.



4.



Does the design have line symmetry? Write *yes* or *no*.

If your answer is *yes*, draw all lines of symmetry.

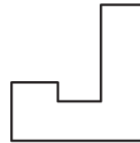
5.



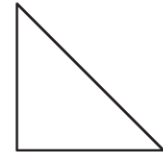
6.



7.



8.



Draw a shape for the statement. Draw the line or lines of symmetry.

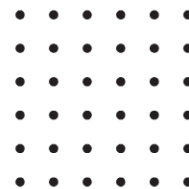
9. zero lines of symmetry



10. 1 line of symmetry



11. 2 lines of symmetry



Problem Solving **REAL WORLD**

Use the chart for 12–13.

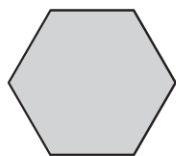
0	2	3	4
5	6	8	9

12. Which number or numbers appear to have only 1 line of symmetry?

13. Which number or numbers appear to have 2 lines of symmetry?

Lesson Check (CC.4.G.3)

1. How many lines of symmetry does this shape appear to have?



- (A) 0 (C) 6
(B) 2 (D) 10

2. Which of the following shapes appears to have exactly 1 line of symmetry?



Spiral Review (CC.4.NF.1, CC.4.NF.4b, CC.4.NF.6, CC.4.G.2)

3. Richard practiced each of 3 piano solos for $\frac{5}{12}$ hour. How long did he practice in all? (Lesson 8.3)

- (A) $\frac{2}{3}$ hour
(B) $1\frac{1}{4}$ hours
(C) $1\frac{1}{3}$ hours
(D) $1\frac{5}{12}$ hours

4. Which of the following decimals is equivalent to three and ten hundredths? (Lesson 9.2)

- (A) 0.30
(B) 0.31
(C) 3.01
(D) 3.1

5. Lynne used $\frac{3}{8}$ cup of flour and $\frac{1}{3}$ cup of sugar in a recipe. Which number below is a common denominator for $\frac{3}{8}$ and $\frac{1}{3}$? (Lesson 6.4)

- (A) 8
(B) 12
(C) 16
(D) 24

6. Kevin draws a figure that has four sides. All sides have the same length. His figure has no right angles. What figure does Kevin draw? (Lesson 10.4)

- (A) square
(B) trapezoid
(C) rhombus
(D) rectangle

Name _____

Problem Solving • Shape Patterns

PROBLEM SOLVING

Lesson 10.7

COMMON CORE STANDARD CC.4.OA.5

Generate and analyze patterns.

Solve each problem.

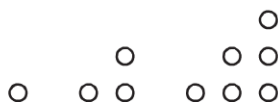
1. Marta is using this pattern to decorate a picture frame. Describe the pattern. Draw what might be the next three figures in the pattern.



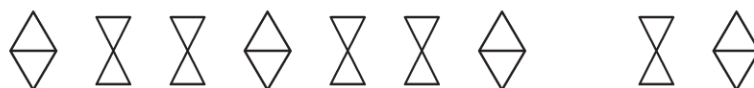
Possible answer: the pattern repeats:

one triangle followed by two squares.

2. Describe the pattern. Draw what might be the next three figures in the pattern. How many circles are in the sixth figure in the pattern?

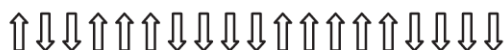


3. Larry stencils this pattern to make a border at the top of his bedroom walls. Describe the pattern. Draw what might be the missing figure in the pattern.



Lesson Check (CC.4.OA.5)

1. What might be the next three figures in this pattern?



- (A) $\downarrow\downarrow\uparrow$ (C) $\uparrow\downarrow\downarrow$
(B) $\downarrow\uparrow\uparrow$ (D) $\downarrow\downarrow\downarrow$

2. Which might be the missing figure in the following pattern?



- (A) (C)
(B) (D)

Spiral Review (CC.4.OA.4, CC.4.NF.3d, CC.4.NF.4a, CC.4.NF.7)

3. Chad has two pieces of wood. One piece is $\frac{7}{12}$ foot long. The second piece is $\frac{5}{12}$ foot longer than the first piece. How long is the second piece? (Lesson 7.5)

- (A) $\frac{2}{12}$ foot
(B) $\frac{1}{2}$ foot
(C) $\frac{12}{18}$ foot
(D) 1 foot

4. Olivia finished a race in 40.64 seconds. Patty finished the race in 40.39 seconds. Miguel finished the race in 41.44 seconds. Chad finished the race in 40.46 seconds. Who finished the race in the least time? (Lesson 9.7)

- (A) Olivia
(B) Patty
(C) Miguel
(D) Chad

5. Justin bought 6 ribbons for an art project. Each ribbon is $\frac{1}{4}$ yard long. How many yards of ribbon did Justin buy? (Lesson 8.1)

- (A) $\frac{2}{3}$ yard
(B) $1\frac{1}{4}$ yards
(C) $1\frac{1}{2}$ yards
(D) $1\frac{3}{4}$ yards

6. Kyle and Andrea were asked to make a list of prime numbers.

Kyle: 1, 3, 7, 19, 23

Andrea: 2, 3, 5, 7, 11

Whose list is correct? (Lesson 5.5)

- (A) Only Kyle's list
(B) Only Andrea's list
(C) Both lists are correct.
(D) Neither list is correct.

Name _____

Chapter 10 Extra Practice

Lesson 10.1

Draw and label an example of the figure.

1. acute $\angle MNP$

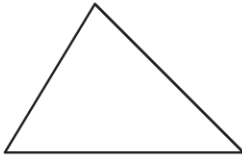
2. \overline{QR}

3. \overrightarrow{TS}

Lesson 10.2

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

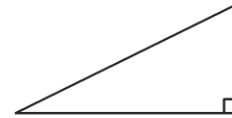
1.



2.



3.

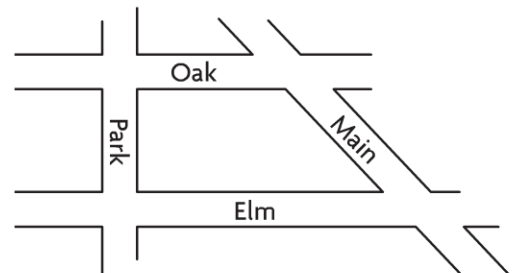


Lesson 10.3

Use the street map for 1–2.

1. Name two streets that appear to be parallel.

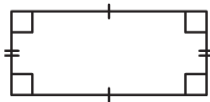
2. Name two streets that appear to be perpendicular.



Lesson 10.4

Classify each figure as many ways as possible. Write *quadrilateral*, *trapezoid*, *parallelogram*, *rhombus*, *rectangle*, or *square*.

1.



2.

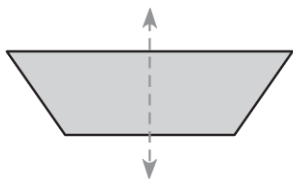


Lesson 10.5

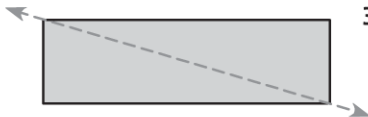
Tell if the dashed line appears to be a line of symmetry.

Write *yes* or *no*.

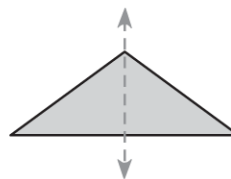
1.



2.



3.



Lesson 10.6

Does the design have line symmetry? Write *yes* or *no*.

If your answer is *yes*, draw all lines of symmetry.

1.



2.



3.



Lesson 10.7

1. Sonia made a pattern. The first nine shapes are shown below. Describe the pattern. Draw what might be the next three shapes in Sonia's pattern.



2. Leo makes a pattern with triangles. Draw what might be the next figure in the pattern. How can you describe the pattern?



School-Home Letter

Dear Family,

Throughout the next few weeks, our math class will be learning about angles and angle measures. We will also learn to use a protractor to measure and draw angles.

You can expect to see homework in which students find and compute with angle measures.

Here is a sample of how your child will be taught how to relate degrees to fractional parts of a circle.

Vocabulary

clockwise The direction the clock hands move

counterclockwise The direction opposite from the way clock hands move

degree (°) A unit for measuring angles

protractor A tool for measuring the size of an angle

MODEL Find Angle Measures

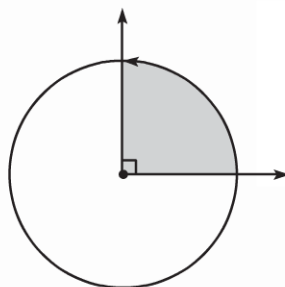
Find the measure of a right angle.

STEP 1

A right angle turns $\frac{1}{4}$ through a circle. Write $\frac{1}{4}$ as an equivalent fraction with 360 in the denominator: $\frac{1}{4} = \frac{90}{360}$

STEP 2

A $\frac{1}{360}$ turn measures 1° . So, a $\frac{90}{360}$ turn measures 90° .



Tips

Classifying Angles

An *acute* angle measures *less than* 90° . An *obtuse* angle measures *more than* 90° and *less than* 180° . A *straight* angle measures 180° .

Activity

Help your child measure angles in pictures of buildings and bridges and decide whether certain angle measures are more common. Then have your child draw his or her own building or bridge design and label each angle measure.

Carta para la casa

Querida familia,

Durante las próximas semanas, en la clase de matemáticas aprenderemos sobre ángulos y medidas de los ángulos. También aprenderemos a usar un transportador y a medir y trazar ángulos.

Llevaré a casa tareas en las que tenga que hallar y hacer cálculos con medidas de ángulos.

Este es un ejemplo de cómo vamos a relacionar los grados con las partes fraccionarias de un círculo.

Vocabulario

en el sentido de las manecillas del reloj La dirección en que se mueven las manecillas del reloj

en sentido contrario a las manecillas del reloj La dirección opuesta a cómo se mueven las manecillas del reloj

grado (°) Una unidad para medir los ángulos

transportador Una herramienta para medir el tamaño de un ángulo



MODELO

Hallar medidas de ángulos

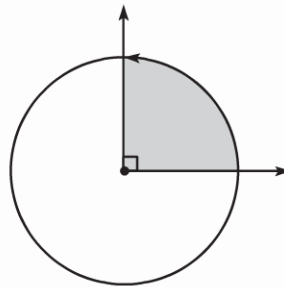
Halla la medida de un ángulo recto.

PASO 1

Un ángulo recto gira $\frac{1}{4}$ de un círculo.
Escribe $\frac{1}{4}$ como una fracción equivalente con 360 en el denominador: $\frac{1}{4} = \frac{90}{360}$

PASO 2

Un giro de $\frac{1}{360}$ mide 1° . Por lo tanto, un giro de $\frac{90}{360}$ mide 90° .



Pistas

Clasificar ángulos

Un ángulo *agudo* mide *menos de* 90° . Un ángulo *obtuso* mide *más de* 90° y *menos de* 180° . Un ángulo *llano* mide 180° .

Actividad

Ayude a su hijo o hija a medir ángulos en dibujos de edificios y puentes y decidan si ciertas medidas de ángulos son más comunes. Luego pídale que dibuje su propio diseño de edificio o puente y que le ponga nombre a cada medida de ángulo.

Lesson 11.1

Name _____

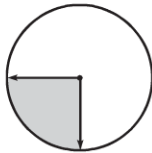
Angles and Fractional Parts of a Circle

COMMON CORE STANDARD CC.4.MD.5a

Geometric measurement: understand concepts of angle and measure angles.

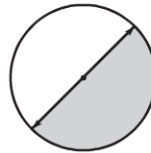
Tell what fraction of the circle the shaded angle represents.

1.

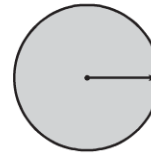


$\frac{1}{4}$

2.

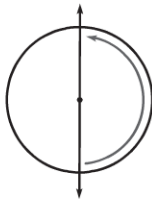


3.

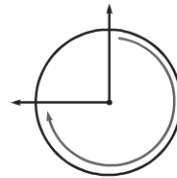


Tell whether the angle on the circle shows a $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, or 1 full turn clockwise or counterclockwise.

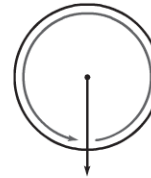
4.



5.



6.



Problem Solving REAL WORLD

7. Shelley exercised for 15 minutes. Describe the turn the minute hand made.



Start



End

8. Mark took 30 minutes to finish lunch. Describe the turn the minute hand made.



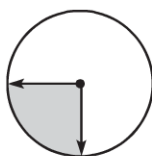
Start



End

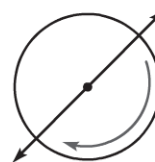
Lesson Check (CC.4.MD.5a)

1. What fraction of the circle does the shaded angle represent?



- (A) $\frac{1}{1}$ or 1 (C) $\frac{1}{2}$
(B) $\frac{3}{4}$ (D) $\frac{1}{4}$

2. Which describes the turn shown below?



- (A) $\frac{1}{4}$ turn clockwise
(B) $\frac{1}{2}$ turn clockwise
(C) $\frac{1}{4}$ turn counterclockwise
(D) $\frac{1}{2}$ turn counterclockwise

Spiral Review (CC.4.OA.4, CC.4.NF.1, CC.4.NF.4c, CC.4.NF.7)

3. Which shows $\frac{2}{3}$ and $\frac{3}{4}$ written as a pair of fractions with a common denominator?

(Lesson 6.4)

- (A) $\frac{2}{3}$ and $\frac{4}{3}$
(B) $\frac{6}{9}$ and $\frac{6}{8}$
(C) $\frac{2}{12}$ and $\frac{3}{12}$
(D) $\frac{8}{12}$ and $\frac{9}{12}$

4. Raymond bought $\frac{3}{4}$ of a dozen rolls. How many rolls did he buy? (Lesson 8.4)

- (A) 3
(B) 6
(C) 7
(D) 9

5. Which of the following lists all the factors of 18? (Lesson 5.1)

- (A) 1, 2, 4, 9, 18
(B) 1, 2, 3, 6, 9, 18
(C) 2, 3, 6, 9
(D) 1, 3, 5, 9, 18

6. Jonathan rode 1.05 miles on Friday, 1.5 miles on Saturday, 1.25 miles on Monday, and 1.1 miles on Tuesday. On which day did he ride the shortest distance? (Lesson 9.7)

- (A) Monday (C) Friday
(B) Tuesday (D) Saturday

Lesson 11.2

Name _____

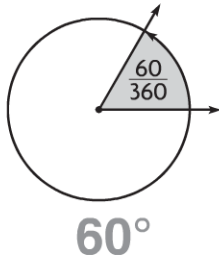
Degrees

COMMON CORE STANDARDS CC.4.MD.5a,
CC.4.MD.5b

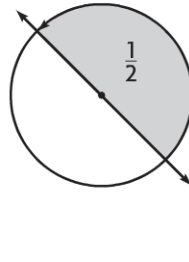
Geometric measurement: understand concepts of angle and measure angles.

Tell the measure of the angle in degrees.

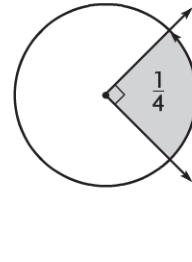
1.



2.

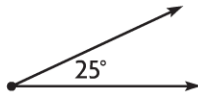


3.

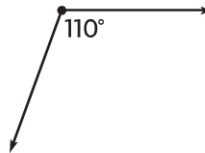


Classify the angle. Write *acute*, *obtuse*, *right*, or *straight*.

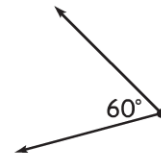
4.



5.

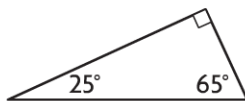


6.

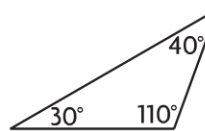


Classify the triangle. Write *acute*, *obtuse*, or *right*.

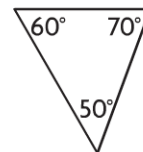
7.



8.



9.



Problem Solving **REAL WORLD**

Ann started reading at 4:00 P.M. and finished at 4:20 P.M.

10. Through what fraction of a circle did the minute hand turn?

11. How many degrees did the minute hand turn?



Start



End

Lesson Check (CC.4.MD.5a, CC.4.MD.5b)

1. What kind of angle is shown?



- (A) acute
- (B) obtuse
- (C) right
- (D) straight

2. How many degrees are in an angle that turns through $\frac{1}{4}$ of a circle?

- (A) 45°
- (B) 90°
- (C) 180°
- (D) 270°

Spiral Review (CC.4.OA.3, CC.4.NF.3b, CC.4.NF.4a, CC.4.NF.5)

3. Mae bought 15 football cards and 18 baseball cards. She separated them into 3 equal groups. How many sports cards are in each group? (Lesson 4.12)

- (A) 5
- (B) 6
- (C) 11
- (D) 12

4. Each part of a race is $\frac{1}{10}$ mile long. Marsha finished 5 parts of the race. How far did Marsha race? (Lesson 8.1)

- (A) $\frac{1}{10}$ mile
- (B) $\frac{5}{12}$ mile
- (C) $\frac{1}{2}$ mile
- (D) $5\frac{1}{10}$ miles

5. Jeff said his city got $\frac{11}{3}$ inches of snow. Which shows this fraction written as a mixed number? (Lesson 7.6)

- (A) $3\frac{2}{3}$
- (B) $3\frac{1}{3}$
- (C) $2\frac{2}{3}$
- (D) $1\frac{2}{3}$

6. Amy ran $\frac{3}{4}$ mile. Which decimal shows how many miles she ran? (Lesson 9.3)

- (A) 0.25 mile
- (B) 0.34 mile
- (C) 0.5 mile
- (D) 0.75 mile

Lesson 11.3

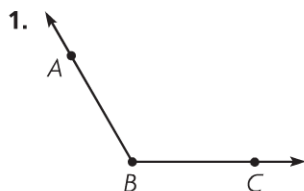
Name _____

Measure and Draw Angles

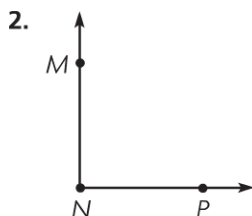
COMMON CORE STANDARD CC.4.MD.6

Geometric measurement: understand concepts of angle and measure angles.

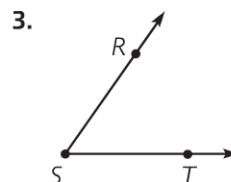
Use a protractor to find the angle measure.



$m\angle ABC = 120^\circ$



$m\angle MNP =$ _____



$m\angle RST =$ _____

Use a protractor to draw the angle.

4. 40°

5. 170°

Draw an example of each. Label the angle with its measure.

6. a right angle

7. an acute angle

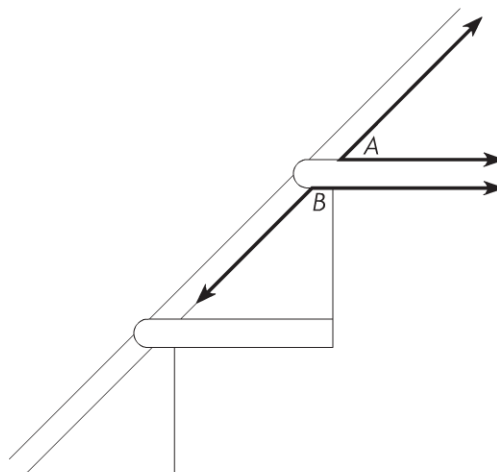
Problem Solving



The drawing shows the angles a stair tread makes with a support board along a wall. Use your protractor to measure the angles.

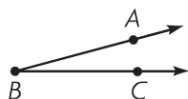
8. What is the measure of $\angle A$? _____

9. What is the measure of $\angle B$? _____



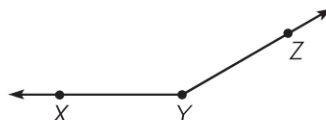
Lesson Check (CC.4.MD.6)

1. What is the measure of $\angle ABC$?



- (A) 15° (C) 155°
(B) 25° (D) 165°

2. What is the measure of $\angle XYZ$?



- (A) 20° (C) 150°
(B) 30° (D) 160°

Spiral Review (CC.4.NBT.6, CC.4.NF.3c, CC.4.MD.5a, CC.4.G.1)

3. Derrick earned \$1,472 during the 4 weeks he had his summer job. If he earned the same amount each week, how much did he earn each week?

(Lesson 4.10)

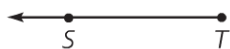
- (A) \$360
(B) \$368
(C) \$3,680
(D) \$5,888

4. Arthur baked $1\frac{7}{12}$ dozen muffins. Nina baked $1\frac{1}{12}$ dozen muffins. How many dozen muffins did they bake in all?

(Lesson 7.7)

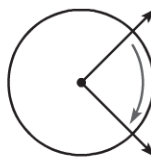
- (A) $3\frac{2}{3}$
(B) $2\frac{2}{3}$
(C) $2\frac{1}{2}$
(D) $\frac{6}{12}$

5. Trisha drew the figure below. What figure did she draw? (Lesson 10.1)



- (A) line segment ST
(B) ray ST
(C) ray TS
(D) line TS

6. Which describes the turn shown by the angle? (Lesson 11.1)



- (A) 1 full turn clockwise
(B) $\frac{3}{4}$ turn clockwise
(C) $\frac{1}{2}$ turn clockwise
(D) $\frac{1}{4}$ turn clockwise