

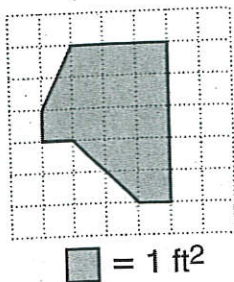
LESSON
10-1

Practice B

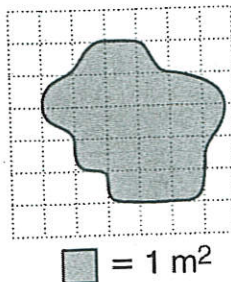
Area of Rectangles and Parallelograms

Estimate the area of each figure.

1.

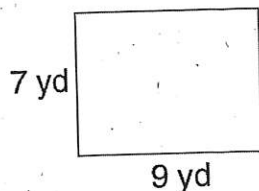


2.

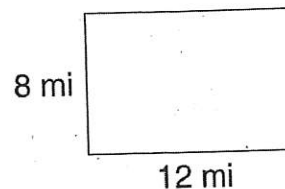


Find the area of each rectangle.

3.

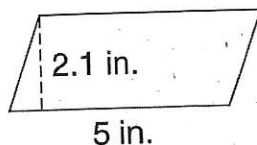


4.

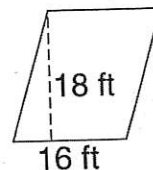


Find the area of each parallelogram.

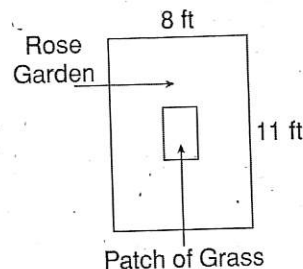
5.



6.



7. Mariah is planting a rectangular rose garden. In the center of the garden, she puts a smaller rectangular patch of grass. The grass is 2 ft by 3 ft. What is the area of the rose garden?



8. A section of a stained-glass window is shaped like a parallelogram. Its base is 6.5 inches, and its height is 4 inches. How much glass is needed to cover the section completely?

9. Your rectangular yard is 10 feet wide and 26 feet long. How many square feet of grass do you need to plant if you want to cover the entire yard?

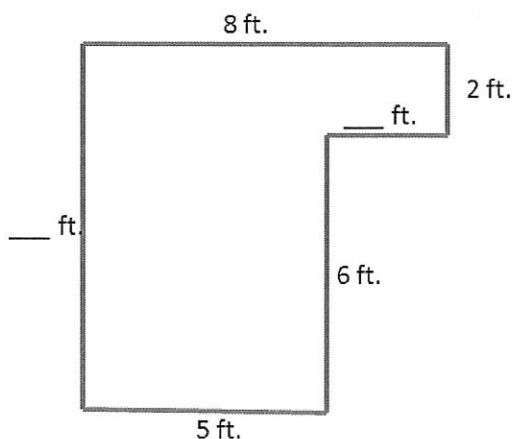
Name _____

Date _____

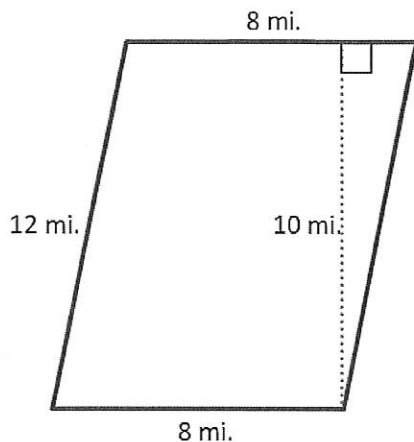
Lesson 5: The Area of Polygons Through Composition and Decomposition

Exit Ticket

1. Find the missing dimensions of the figure below, and then find the area. The figure is not drawn to scale.



2. Find the area of the parallelogram below by decomposing into two triangles. The figure is not drawn to scale.



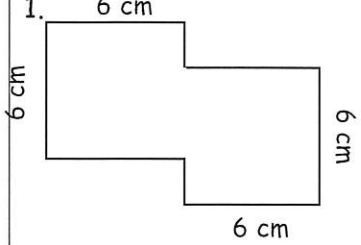
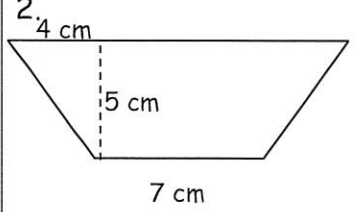
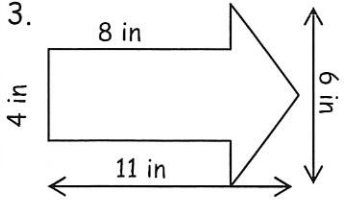
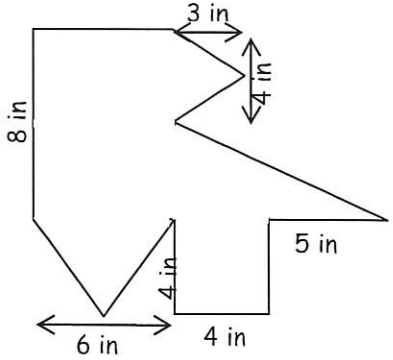
Name _____

Date _____

Decomposing Polygons to Find Area

Directions: Decompose each polygon into rectangles and triangles to find the area.

1. Section the shape into rectangles and/or triangles.
2. Find the area of each rectangle and triangle.
3. Find the total area of the polygon.

<p>1. </p> <p style="text-align: center;">Section into rectangles or triangles.</p>	<p style="text-align: center;">Work Space</p> <p>Total Area=</p>	<p>2. </p> <p style="text-align: center;">Section into rectangles or triangles.</p>	<p style="text-align: center;">Work Space</p> <p>Total Area=</p>
<p>3. </p> <p style="text-align: center;">Section into rectangles or rectangles</p>	<p style="text-align: center;">Work Space</p> <p>Total Area=</p>	<p>4. </p> <p style="text-align: center;">Section into rectangles or triangles.</p>	
<p>5. Create your own polygon. You will need to be able to divide your polygon into at least 3 triangles and/or rectangles. Solve.</p> <p>Total Area=</p>		<p style="text-align: center;">Work Space</p> <p>Total Area=</p>	

Problem-Solving Investigation: Choose the Best Method of Computation

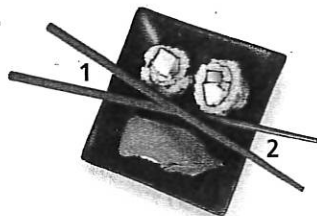
1. MEAUREMENT How many seconds are in one week?

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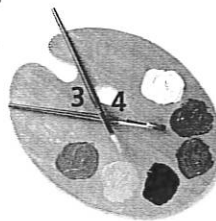
GUIDED PRACTICE

See Example 1 Identify the type of each angle pair shown.

1.

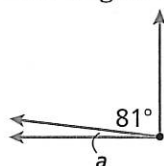


2.

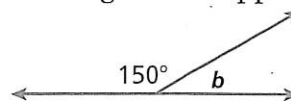


See Example 2 Find each unknown angle measure.

3. The angles are complementary.



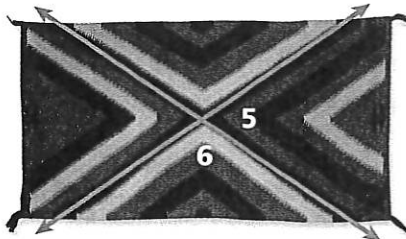
4. The angles are supplementary.



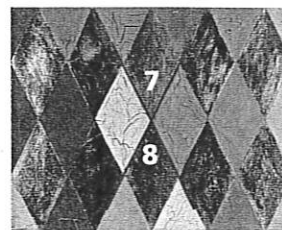
INDEPENDENT PRACTICE

See Example 1 Identify the type of each angle pair shown.

5.

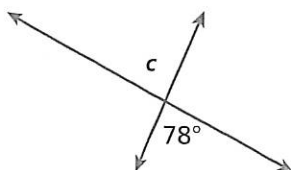


6.

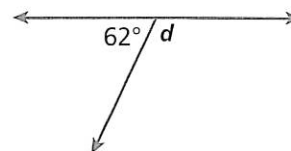


See Example 2 Find each unknown angle measure.

7. The angles are vertical angles.



8. The angles are supplementary.



PRACTICE AND PROBLEM SOLVING

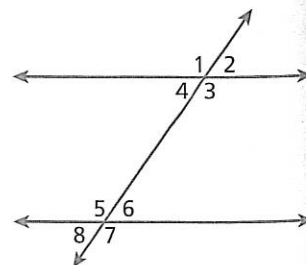
Extra Practice

See page EP15.

Use the figure for Exercises 9-12.

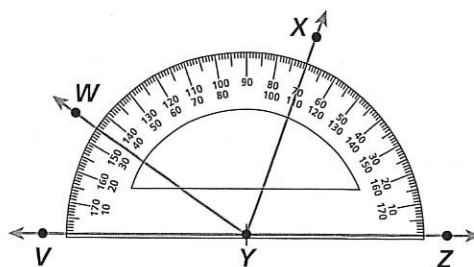
9. Which angles are not adjacent to $\angle 3$?10. Name all the pairs of vertical angles that include $\angle 8$.

11. If the $m\angle 6$ is 72° , what are the measures of $\angle 5$, $\angle 7$, and $\angle 8$?

12. What is the sum of the measures of $\angle 1$, $\angle 2$, $\angle 3$, and $\angle 4$?

Use the figure for Exercises 13–15.

13. Find the measure of $\angle VYW$.
14. Find the measure of $\angle XYZ$.
15. **Multi-Step** Use the measures of $\angle VYW$ and $\angle XYZ$ to find the measure of $\angle WYX$.



Find the measure of the angle that is complementary to each given angle.
Use a protractor to draw both angles.

16. 47°
17. 62°
18. 55°
19. 31°

Find the measure of the angle that is supplementary to each given angle.
Use a protractor to draw both angles.

20. 75°
21. 102°
22. 136°
23. 81°

24. Angles A and B are complementary. If the measure of angle A equals the measure of angle B , what is the measure of each angle?

25. Angles C and D are each complementary to angle F . How are angle C and angle D related?

26. **Write a Problem** Draw a pair of adjacent supplementary angles. Write a problem in which the measure of one of the angles must be found.
27. **Write About It** Two angles are supplementary to the same angle. Explain the relationship between the measures of these angles.
28. **Challenge** The measure of angle A is 38° . Angle B is complementary to angle A . Angle C is supplementary to angle B . What is the measure of angle C ?

Test Prep and Spiral Review

29. **Multiple Choice** Which type of angles are always congruent?

(A) Adjacent (B) Complementary (C) Supplementary (D) Vertical

30. **Multiple Choice** Angle J and angle K are supplementary. What is the measure of $\angle K$ if the measure of $\angle J$ is 75° ?

(F) 15° (G) 25° (H) 105° (J) 150°

Find the missing value in each proportion. (Lesson 7-3)

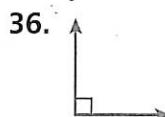
31. $\frac{n}{6} = \frac{5}{15}$

32. $\frac{2}{m} = \frac{0.8}{3.6}$

33. $\frac{1}{8} = \frac{p}{2}$

34. $\frac{30}{8} = \frac{15}{s}$

Classify each angle as acute, right, obtuse, or straight. (Lesson 8-2).



NAME: _____

DIRECTIONS

Solve each problem.

1. $8 + (-10) = \underline{\hspace{2cm}}$

9. How many days are in a leap year?

2. $7 \times 5 = \underline{\hspace{2cm}}$

10. Is 107° an acute angle?

3. $5 \overline{)30}$

11. Every week, Colin mows the lawn, edges the lawn, and pulls the weeds. List all the possible orders in which he can take care of the yard.

_____4. What is the even number right before 92?

_____5. Write 5 tenths + 7 hundredths as a decimal.

6. $72 \div 3 \div 6 = \underline{\hspace{2cm}}$

7. Find n . $n - 7.3 = 8.5$

$n = \underline{\hspace{2cm}}$

8. $\square \% \text{ of } 68 = 34$

12. There are 82 sixth graders at Morris School. If they are arranged in groups of 6, how many full groups would there be?

_____**SCORE**

1. (Y) (N)

2. (Y) (N)

3. (Y) (N)

4. (Y) (N)

5. (Y) (N)

6. (Y) (N)

7. (Y) (N)

8. (Y) (N)

9. (Y) (N)

10. (Y) (N)

11. (Y) (N)

12. (Y) (N)

____ / 12

Total

GUIDED PRACTICE

- See Example 1 1. The length of a school hallway is 115 meters. How many kilometers long is the hallway?

- See Example 2 Convert.

2. The diameter of a ceiling fan is about 95 cm. $95 \text{ cm} = \square \text{ m}$

3. A rock has a mass of about 852 g. $852 \text{ g} = \square \text{ kg}$

4. A vase holds about 1.25 L of water. $1.25 \text{ L} = \square \text{ mL}$

5. A sheet of paper has a mass of about 3.5 g. $3.5 \text{ g} = \square \text{ mg}$

- See Example 3
- | | | |
|--|--|--|
| 6. $3 \text{ kg} = \square \text{ g}$ | 7. $4.4 \text{ L} = \square \text{ mL}$ | 8. $1 \text{ kg} = \square \text{ mg}$ |
| 9. $50 \text{ mm} = \square \text{ m}$ | 10. $21 \text{ km} = \square \text{ cm}$ | 11. $6 \text{ ml} = \square \text{ L}$ |

INDEPENDENT PRACTICE

- See Example 1 12. A juice container holds 300 milliliters. How many liters of juice are in the container?

- See Example 2 Convert.

13. A teacup holds about 110 mL. $110 \text{ mL} = \square \text{ L}$

14. The distance around a school is about 825 m. $825 \text{ m} = \square \text{ km}$

15. A chair has a mass of about 22.5 kg. $22.5 \text{ kg} = \square \text{ g}$

16. A gas tank holds about 85 L. $85 \text{ L} = \square \text{ mL}$

- See Example 3
- | | | |
|--|---|--|
| 17. $2,460 \text{ m} = \square \text{ km}$ | 18. $842 \text{ mm} = \square \text{ cm}$ | 19. $9,680 \text{ mg} = \square \text{ g}$ |
| 20. $25 \text{ cm} = \square \text{ mm}$ | 21. $782 \text{ g} = \square \text{ kg}$ | 22. $1.2 \text{ km} = \square \text{ m}$ |

PRACTICE AND PROBLEM SOLVING

Extra Practice

See page EP19.

23. **Multi-Step** There are 28 L of soup in a pot. Marshall serves 400 mL in each bowl. If he fills 16 bowls, how much soup is left in the pot? Write your answer two ways: as a number of liters and as a number of milliliters.
24. **Multi-Step** Joanie wants to frame a rectangular picture that is 1.7 m by 0.9 m. Joanie has 500 cm of wood to use for a frame. Does Joanie have enough wood to frame the picture? Explain.

Convert.

25. $\frac{23,850 \text{ cm}}{x \text{ km}} = \frac{100,000 \text{ cm}}{1 \text{ km}}$

27. $7 \text{ km} \cdot \frac{1,000 \text{ m}}{\text{km}} = \square \text{ m}$

26. $\frac{350 \text{ L}}{x \text{ mL}} = \frac{1 \text{ L}}{1,000 \text{ mL}}$

28. $9.5 \text{ L} \cdot \frac{1,000 \text{ mL}}{\text{L}} = \square \text{ mL}$

NAME: _____

DIRECTIONS

Solve each problem.

SCORE

1. (Y) (N)

2. (Y) (N)

3. (Y) (N)

4. (Y) (N)

5. (Y) (N)

6. (Y) (N)

7. (Y) (N)

8. (Y) (N)

9. (Y) (N)

10. (Y) (N)

11. (Y) (N)

12. (Y) (N)

____ / 12

Total

1. $80 - 14 = \underline{\hspace{2cm}}$

2. $10 \times 5 = \underline{\hspace{2cm}}$

3. $-90 \div -10 = \underline{\hspace{2cm}}$

4. What is the number 4 less than 2?

_____5. Is $\frac{3}{4}$ greater than, less than, or equal to $\frac{6}{8}$?

6. $29 \cdot 3 \div 3 = \underline{\hspace{2cm}}$

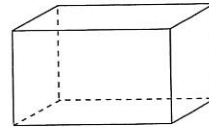
7. Solve for v . $\frac{v}{7} = 22$

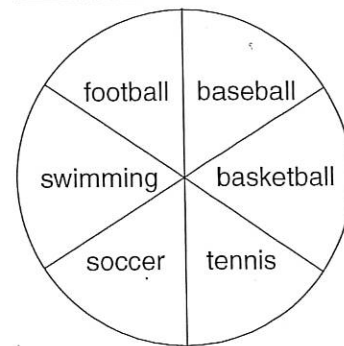
$v = \underline{\hspace{2cm}}$

8. $4 \square 29 = 116$

9. 2 yards = _____ inches

10. Draw a side view of the rectangular prism.

11. What is the probability that the spinner will land on a sport that uses a ball?

_____12. I am part of a whole. I am four times as large as one-fifth. I am a decimal. What am I?
