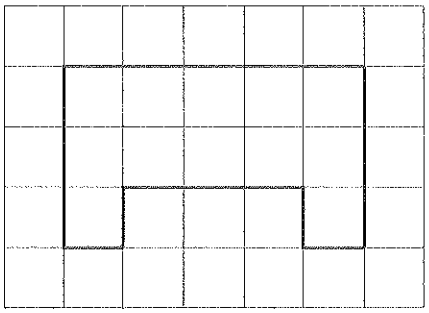
Homework and Practice

TEKS Geometry and Measurement—3.7.B
MATHEMATICAL PROCESSES 3.1.C, 3.1.E, 3.1.G

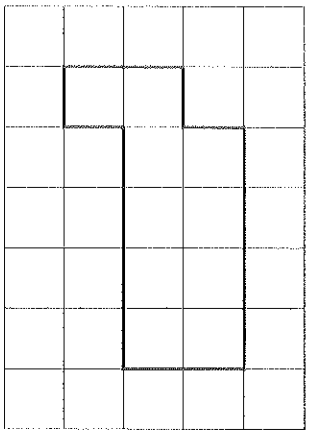
Name _____

17.1 Model Perimeter

Find the perimeter of the figure. Each unit is 1 centimeter.

1. 

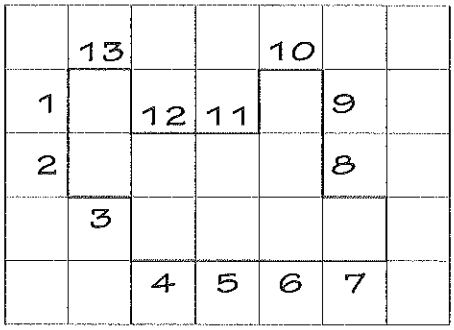
_____ centimeters

2. 

_____ centimeters

Problem Solving Real World

3. Alyssa says the perimeter of this figure is 13 units. Describe the error Alyssa made.



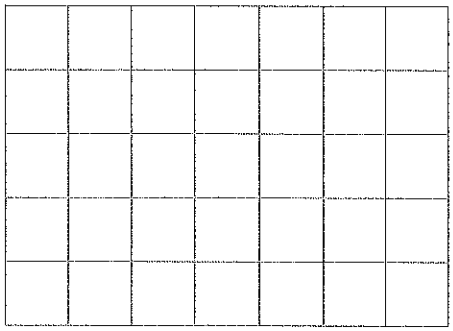
_____

_____

_____

_____

4. Draw your own figure on the grid. Find the perimeter.



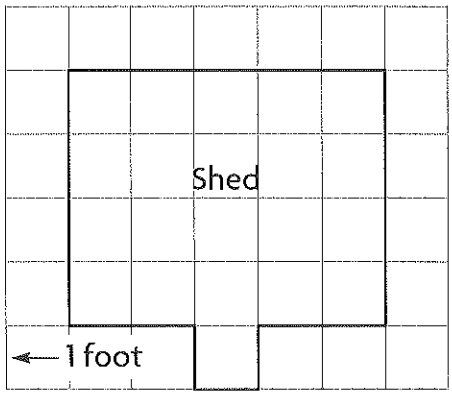
Perimeter = _____ units

Lesson Check

TEXAS Test Prep

Fill in the bubble completely to show your answer.

5. Paula drew this plan for a new backyard shed. Each unit is 1 foot. What is the perimeter of the shed?



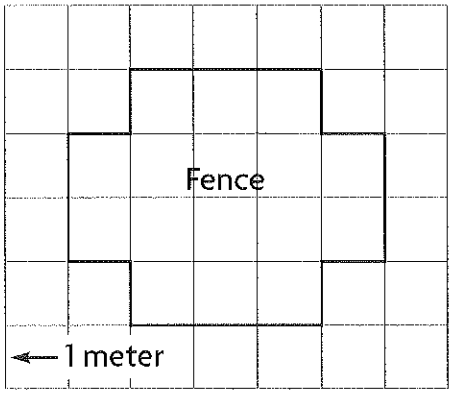
Ⓐ 24 feet

Ⓑ 20 feet

Ⓒ 18 feet

Ⓓ 42 feet

6. Andy drew this plan for a fence in his yard. Each unit is 1 meter. What is the perimeter of the fence?



Ⓐ 18 meter

Ⓑ 24 meter

Ⓒ 22 meter

Ⓓ 36 meter

7. **Multi-Step** Latoya sews a border around two quilts. One quilt has side lengths of 4 feet and 6 feet. Another quilt has side lengths of 8 feet and 6 feet. How many feet of border does she sew?

Ⓐ 28 feet

Ⓑ 20 feet

Ⓒ 48 feet

Ⓓ 42 feet

8. **Multi-Step** Roland buys baseboards for two rectangular rooms. One room has side lengths of 5 meters and 7 meters. The second room has side lengths of 6 meters and 9 meters. How many meters of baseboard does Roland buy?

Ⓐ 50 meters

Ⓑ 30 meters

Ⓒ 24 meters

Ⓓ 54 meters

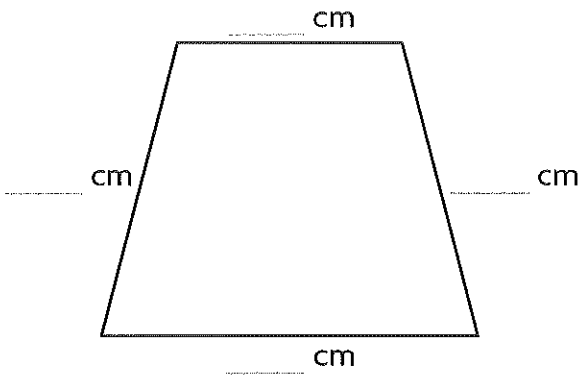
TEKS Geometry and Measurement—3.7.B
MATHEMATICAL PROCESSES 3.1.C, 3.1.E

Name _____

17.2 Find Perimeter

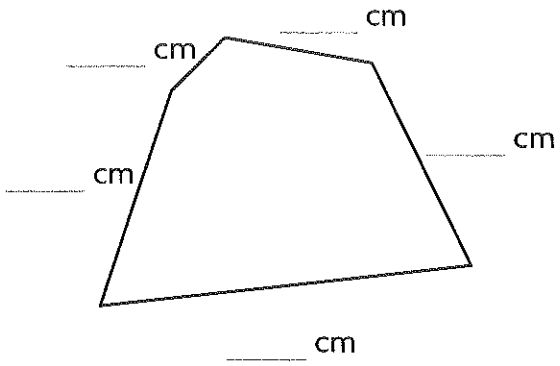
Use a centimeter ruler to find the perimeter.

1.



_____ centimeters

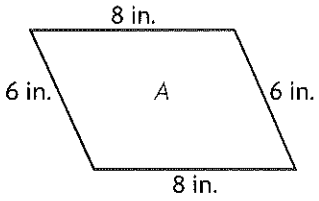
2.

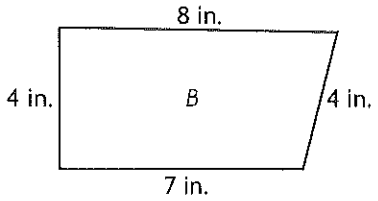


_____ centimeters

Problem Solving Real World

Use the drawings for 3–4.





3. Carly drew quadrilaterals *A* and *B*. Which quadrilateral has a perimeter of 28 inches?

_____

4. How much greater is the perimeter of quadrilateral *A* than the perimeter of quadrilateral *B*?

_____

Lesson Check

TEXAS Test Prep

Fill in the bubble completely to show your answer.

5. Benjamin builds a fence in the shape of a triangle. Each side of the fence is the same length. If the perimeter is 36 feet, how long is each side of the fence?

   Ⓐ 6 feet

   Ⓑ 12 feet

   Ⓒ 9 feet

   Ⓓ 18 feet

6. Anton puts a rail around his patio. The patio is in the shape of a rectangle with side lengths of 7 feet and 9 feet. What is the perimeter of Anton's patio?

   Ⓐ 16 feet

   Ⓑ 63 feet

   Ⓒ 22 feet

   Ⓓ 32 feet

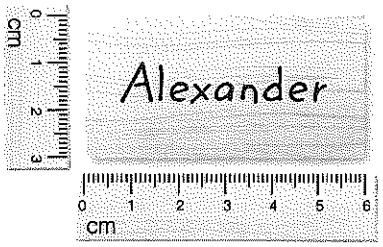
7. Alexander makes this name plate from wood in art class. What is the perimeter of the name plate?

   Ⓐ 18 cm

   Ⓑ 9 cm

   Ⓒ 3 cm

   Ⓓ 6 cm



8. **Multi-Step** Iris sews a border around a blanket. The blanket has side lengths that are 4 feet and 6 feet. The border material costs $2 for each foot. How much does Iris pay for the border?

   Ⓐ $20

   Ⓑ $12

   Ⓒ $40

   Ⓓ $16

9. **Multi-Step** An artist paints two pictures. Each picture has side lengths of 2 feet and 4 feet. Framing costs $3 for each foot. How much will the artist pay to put a frame around both paintings?

   Ⓐ $18

   Ⓑ $72

   Ⓒ $36

   Ⓓ $24

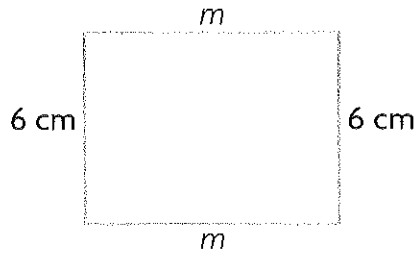
Name _____

17.3 Find Unknown Side Lengths

ALGEBRA

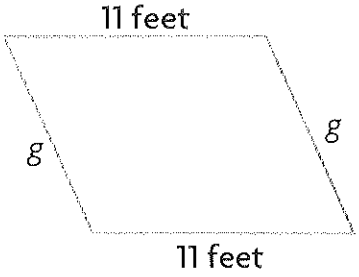
Find the unknown side lengths.

1. Perimeter = 28 centimeters



m = _____ centimeters

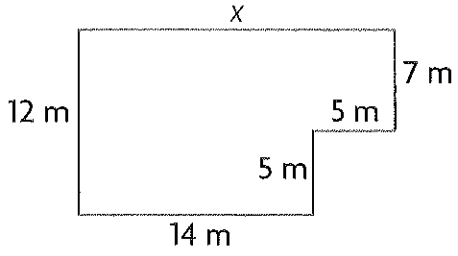
2. Perimeter = 40 feet



g = _____ feet

Problem Solving Real World

Use the diagram for 3–4.



3. Mitch needs to replace the fence in his backyard. The diagram shows the lengths of the borders of the fence. The length of the fence is 62 meters. What is the unknown side length? **Explain** how you will solve the problem. Then write an equation to solve the problem.

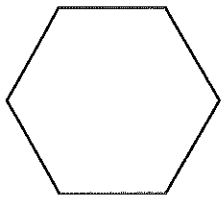
4. What if Mitch changes the shape of his fence to a rectangle? How much fencing will Mitch need? **Explain**.

Lesson Check

TEXAS Test Prep

Fill in the bubble completely to show your answer.

5. Nagi has a mirror in the shape of a hexagon. He puts a frame around it that has a perimeter of 42 inches.



How long is each side?

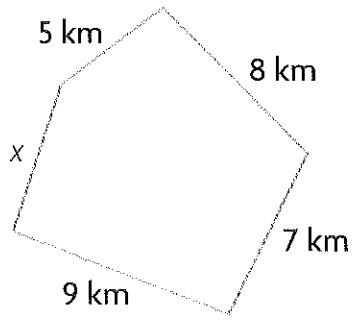
Ⓐ 7 inches
Ⓑ 6 inches
Ⓒ 8 inches
Ⓓ 9 inches

6. Zena has a square picture frame with a perimeter of 28 inches. Which equation can she use to find the length of each side?

Ⓐ $4 \times s = 28$
Ⓑ $4 + s = 28$
Ⓒ $28 \times 4 = s$
Ⓓ $28 + 4 = s$

7. A farmer is putting a new fence around a section of his ranch. The fence is 35 kilometers long. What is the length of the unknown side?

Ⓐ 6 kilometers
Ⓑ 29 kilometers
Ⓒ 7 kilometers
Ⓓ 35 kilometers



8. **Multi-Step** Glenda puts a border of wallpaper around her bedroom wall. The room is a rectangle with side lengths of 3 meters and 4 meters. If she has 20 meters of wallpaper, how much wallpaper is left over?

Ⓐ 13 meters
Ⓑ 6 meters
Ⓒ 27 meters
Ⓓ 14 meters

9. **Multi-Step** Jorge sews a trim around the edge of a tablecloth with 8 sides. He has 32 feet of trim. If each side of the tablecloth is 2 feet long, how much trim will Jorge have left?

Ⓐ 10 feet
Ⓑ 8 feet
Ⓒ 42 feet
Ⓓ 16 feet