

Area and Perimeter

Unit Test, Form A (page 1 of 2)

Score _____ / 12

1. Use the formulas to find the area and the perimeter.



6 cm

8 cm

A = _____ × _____

= _____ sq cm

P = 2 × _____ + 2 × _____

= _____ cm

2. The shape is a square. Find its area and its perimeter.



9 in

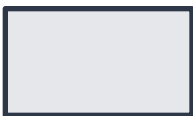
A = _____ × _____

= _____ sq in

P = 4 × _____

= _____ in

3. Find the area and the perimeter. Show your work.



14 m

26 m

not to scale

A = _____ sq m

P = _____ m

4. Each rectangle's sides are in centimeters. Fill in the table.

Length	Width	Area	Perimeter
45	8		
20	12		

5. Use the area to find the missing side.



Area = 96 sq ft

8 ft

not to scale

_____ ft

6. Use the perimeter to find the missing side.



Perimeter = 54 m

17 m

not to scale

_____ m

Area and Perimeter

Unit Test, Form A (page 2 of 2)

7. Read the story. Then answer.

A rug is 12 feet long and 9 feet wide.
How many square feet of floor does it cover?

_____ square feet

8. Read the story. Then answer.

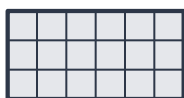
Ana puts a fence around a pen that is 15 feet long and 11 feet wide. How many feet of fence does she need?

_____ feet

9. The rectangles have the same perimeter. Write each area. Circle the one with the greater area.



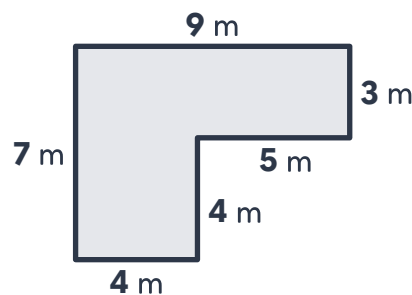
A = _____



A = _____

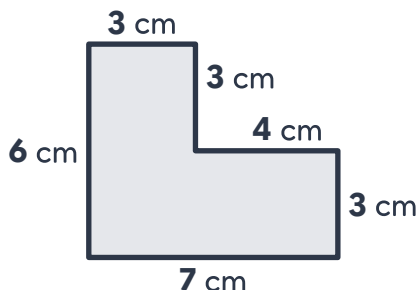
Each perimeter = _____ units

10. Split the shape into two rectangles. Find its area.



Area = _____ sq m

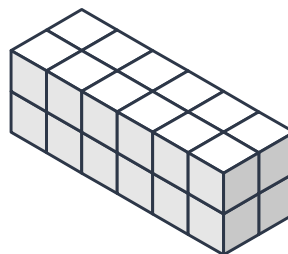
11. Find the perimeter and the area of the shape.



Perimeter = _____ cm

Area = _____ sq cm

12. The box is filled with unit cubes. Find the volume.



Bottom layer: _____

Layers: _____

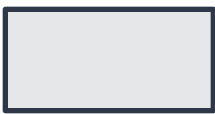
Volume = _____ cubic units

Area and Perimeter

Unit Test, Form B (page 1 of 2)

Score _____ / 12

1. Use the formulas to find the area and the perimeter.



7 ft

9 ft

A = _____ × _____

= _____ sq ft

P = 2 × _____ + 2 × _____

= _____ ft

2. The shape is a square. Find its area and its perimeter.



10 m

A = _____ × _____

= _____ sq m

P = 4 × _____

= _____ m

3. Find the area and the perimeter. Show your work.



15 yd

32 yd

not to scale

A = _____ sq yd

P = _____ yd

4. Each rectangle's sides are in inches. Fill in the table.

Length	Width	Area	Perimeter
37	9		
30	11		

5. Use the area to find the missing side.



Area = 91 sq cm

7 cm

_____ cm

not to scale

6. Use the perimeter to find the missing side.



Perimeter = 46 ft

15 ft

_____ ft

not to scale

Area and Perimeter

Unit Test, Form B (page 2 of 2)

7. Read the story. Then answer.

A garden is **14** meters long and **6** meters wide. What is the area of the garden?

_____ square meters

8. Read the story. Then answer.

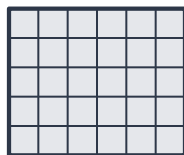
A picture frame is **16** inches long and **12** inches wide. How many inches of ribbon go around it?

_____ inches

9. The rectangles have the same perimeter. Write each area. Circle the one with the greater area.



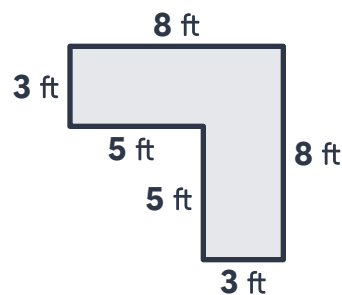
A = _____



A = _____

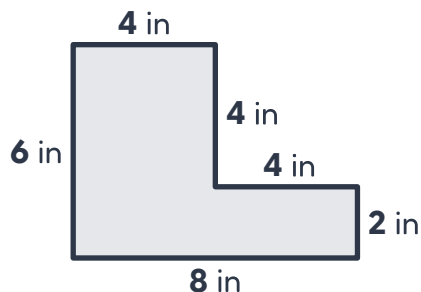
Each perimeter = _____ units

10. Split the shape into two rectangles. Find its area.



Area = _____ sq ft

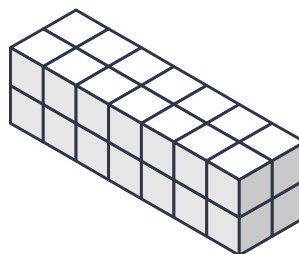
11. Find the perimeter and the area of the shape.



Perimeter = _____ in

Area = _____ sq in

12. The box is filled with unit cubes. Find the volume.



Bottom layer: _____

Layers: _____

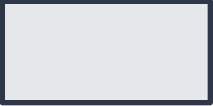
Volume = _____ cubic units

Area and Perimeter

Unit Test, Form A (page 1 of 2)

Score _____ / 12

1. Use the formulas to find the area and the perimeter. either order



$$A = \underline{8} \times \underline{6}$$

$$= \underline{48} \text{ sq cm}$$

$$P = 2 \times \underline{8} + 2 \times \underline{6}$$

$$= \underline{28} \text{ cm}$$

Lesson 12.1 · Area and perimeter formulas

2. The shape is a square. Find its area and its perimeter.



$$A = \underline{9} \times \underline{9}$$

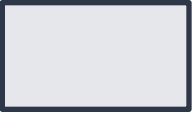
$$= \underline{81} \text{ sq in}$$

$$P = 4 \times \underline{9}$$

$$= \underline{36} \text{ in}$$

Lesson 12.1 · Area and perimeter formulas

3. Find the area and the perimeter. Show your work.



$$A = \underline{364} \text{ sq m}$$

$$P = \underline{80} \text{ m}$$

not to scale

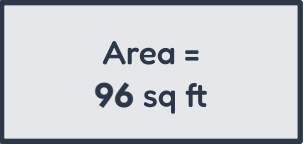
Lesson 12.2 · Larger side lengths

4. Each rectangle's sides are in centimeters. Fill in the table.

Length	Width	Area	Perimeter
45	8	360	106
20	12	240	64

Lesson 12.2 · Larger side lengths

5. Use the area to find the missing side.



$$\underline{12} \text{ ft}$$

not to scale

Lesson 12.3 · Find an unknown side

6. Use the perimeter to find the missing side.



$$\underline{10} \text{ m}$$

not to scale

Lesson 12.3 · Find an unknown side

Area and Perimeter

Unit Test, Form A (page 2 of 2)

7. Read the story. Then answer.

A rug is 12 feet long and 9 feet wide. How many square feet of floor does it cover?

108 square feet

Lesson 12.4 · Area and perimeter stories

8. Read the story. Then answer.

Ana puts a fence around a pen that is 15 feet long and 11 feet wide. How many feet of fence does she need?

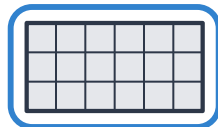
52 feet

Lesson 12.4 · Area and perimeter stories

9. The rectangles have the same perimeter. Write each area. Circle the one with the greater area.



A = 8



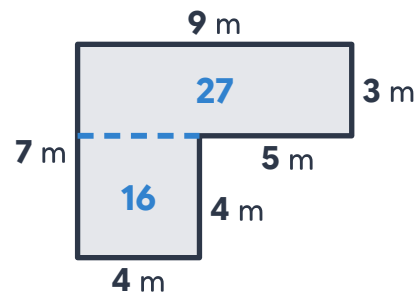
A = 18

Each perimeter = 18 units

Lesson 12.5 · Same perimeter or same area

10. Split the shape into two rectangles. Find its area.

One way

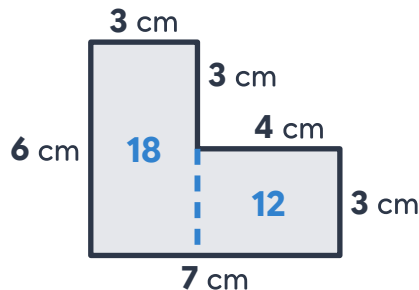


Area = 43 sq m

Lesson 12.6 · Shapes made of rectangles

11. Find the perimeter and the area of the shape.

One way

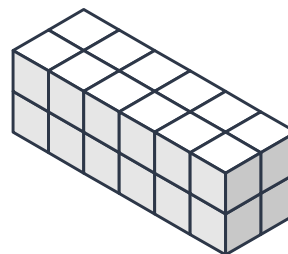


Perimeter = 26 cm

Area = 30 sq cm

Lesson 12.6 · Shapes made of rectangles

12. The box is filled with unit cubes. Find the volume.



Bottom layer: 12

Layers: 2

Volume = 24 cubic units

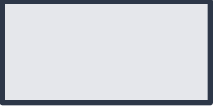
Lesson 12.7 · Volume with unit cubes

Area and Perimeter

Unit Test, Form B (page 1 of 2)

Score _____ / 12

1. Use the formulas to find the area and the perimeter. either order



$$A = \underline{9} \times \underline{7}$$

$$= \underline{63} \text{ sq ft}$$

$$P = 2 \times \underline{9} + 2 \times \underline{7}$$

$$= \underline{32} \text{ ft}$$

Lesson 12.1 · Area and perimeter formulas

2. The shape is a square. Find its area and its perimeter.



$$A = \underline{10} \times \underline{10}$$

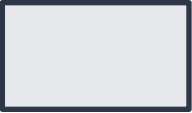
$$= \underline{100} \text{ sq m}$$

$$P = 4 \times \underline{10}$$

$$= \underline{40} \text{ m}$$

Lesson 12.1 · Area and perimeter formulas

3. Find the area and the perimeter. Show your work.



$$A = \underline{480} \text{ sq yd}$$

$$P = \underline{94} \text{ yd}$$

not to scale

Lesson 12.2 · Larger side lengths

4. Each rectangle's sides are in inches. Fill in the table.

Length	Width	Area	Perimeter
37	9	333	92
30	11	330	82

Lesson 12.2 · Larger side lengths

5. Use the area to find the missing side.



$$\underline{13} \text{ cm}$$

not to scale

Lesson 12.3 · Find an unknown side

6. Use the perimeter to find the missing side.



$$\underline{8} \text{ ft}$$

not to scale

Lesson 12.3 · Find an unknown side

Area and Perimeter

Unit Test, Form B (page 2 of 2)

7. Read the story. Then answer.

A garden is **14** meters long and **6** meters wide. What is the area of the garden?

84 square meters

Lesson 12.4 · Area and perimeter stories

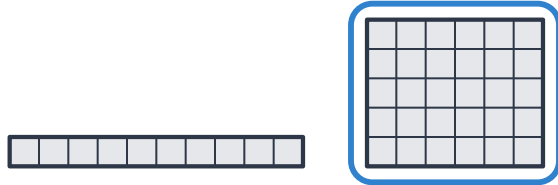
8. Read the story. Then answer.

A picture frame is **16** inches long and **12** inches wide. How many inches of ribbon go around it?

56 inches

Lesson 12.4 · Area and perimeter stories

9. The rectangles have the same perimeter. Write each area. Circle the one with the greater area.



A = 10

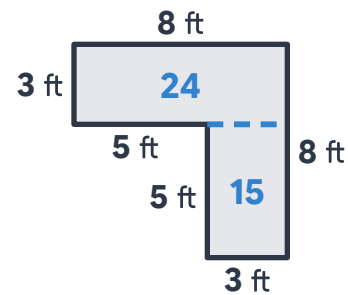
A = 30

Each perimeter = 22 units

Lesson 12.5 · Same perimeter or same area

10. Split the shape into two rectangles. Find its area.

One way

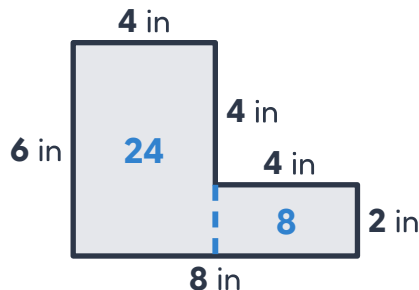


Area = 39 sq ft

Lesson 12.6 · Shapes made of rectangles

11. Find the perimeter and the area of the shape.

One way

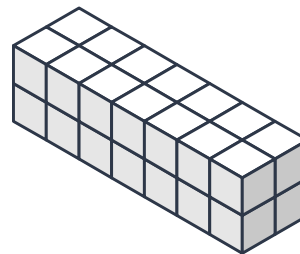


Perimeter = 28 in

Area = 32 sq in

Lesson 12.6 · Shapes made of rectangles

12. The box is filled with unit cubes. Find the volume.



Bottom layer: 14

Layers: 2

Volume = 28 cubic units

Lesson 12.7 · Volume with unit cubes