MATH

Area and perimeter of rectangles

Name _____ Date _____

I can find the area and the perimeter of a rectangle and solve problems.

1 How it works

Area = length × width, in square units. Perimeter = 2 × (length + width), in units. Shapes with the same perimeter can have different areas, and shapes with the same area can have different perimeters.



Area: 5 × 3 = 15 square units

Perimeter: 16 units

2 Find the area and the perimeter

1



Area ☐ sq cm

Perimeter ☐ cm

2



Area ☐ sq m

Perimeter ☐ m

3



Area ☐ sq in

Perimeter ☐ in

4



Area ☐ sq ft

Perimeter ☐ ft

How did I do? ☆ ☆ ☆

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Same perimeter or same area?

Name _____ Date _____

I can see that shapes with the same perimeter can have different areas.

1 Rectangles with a perimeter of 16 units

Fill in the length and the area.

Width	Length	Area (sq units)
1		
2		
3		
4		

2 Rectangles with an area of 12 square units

Fill in the width and the perimeter.

Length	Width	Perimeter (units)
12		
6		
4		

3 What do you notice?

1. Which rectangle in table 1 has the largest area?

2. Which rectangle in table 2 has the shortest perimeter?

How did I do? ☆ ☆ ☆

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Missing sides and gardens

Name _____ Date _____

I can use area and perimeter to find missing sides.

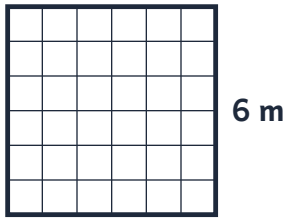
1 Find the missing number

1. A rectangle has an area of 16 square feet. One side is 4 feet. How long is the other side? ____
2. A rectangle has a perimeter of 16 meters. Its length is 6 meters. What is its width? ____
3. A square has a perimeter of 16 inches. How long is each side? ____
4. A square has sides of 5 cm. What is its area? ____

2 Two gardens

Each garden is in meters.

Garden A



Garden B



1. Which garden needs more fence around it? ____
2. Which garden has more room to plant? ____

How did I do? ☆ ☆ ☆

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Word problems

Name _____ Date _____

I can solve problems about area and perimeter.

1 Read, draw, answer

A quick sketch helps.

1 A room is 6 meters by 5 meters. What is its area, and how much border goes around the edge?

Answer:

2 Sara has 16 meters of fence for a rectangle garden. Which gives more space to plant: 4 by 4 or 6 by 2?

Answer:

3 A rectangle has an area of 36 square inches and a length of 9 inches. What is its perimeter?

Answer:

4 Leo and Noor each draw a rectangle with an area of 12 square cm. Leo's is 3 by 4 and Noor's is 6 by 2. Whose has the longer perimeter?

Answer:

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: area and perimeter of rectangles

1 Page 1

Area and perimeter: 1) 44 sq cm, 30 cm; 2) 48 sq m, 32 m; 3) 6 sq in, 10 in; 4) 22 sq ft, 26 ft.

2 Page 2

Table 1: 1 by 7, area 7; 2 by 6, area 12; 3 by 5, area 15; 4 by 4, area 16.

Table 2: 12 by 1, perimeter 26; 6 by 2, perimeter 16; 4 by 3, perimeter 14.

Notice: 1) 4 by 4 2) 4 by 3. The closer to a square, the bigger the area and the shorter the perimeter.

3 Page 3

Missing numbers: 1) 4 feet 2) 2 meters 3) 4 inches 4) 25 square cm.

Gardens: both need the same fence, 24 meters. Garden A has more room: 36 square meters (B is 27).

4 Page 4: word problems

1) Area 30 square meters, perimeter 22 meters

2) The 4 by 4 garden (16 square meters, the 6 by 2 is 12)

3) 26 inches (width 36 ÷ 9 = 4, then 9 + 4 + 9 + 4)

4) Noor's (16 cm, Leo's is 14 cm)

5 Teaching tip

Ask which one a job needs: carpet and paint need area, a fence or a border needs perimeter. Real situations keep the two ideas apart.

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