

Even More Area and Perimeter Word Problems – Answer Key

The perimeter of a rectangular playground is 46 m. If the length of the park is 7 m, what is the width of the park?

Width = 16m

$$7 + 7 = 14 \quad 46 - 14 = 32 \quad 32 / 2 = 16$$

$$\text{Check: } 7 + 7 + 16 + 16 = 46$$

A rectangular room measures 12 m by 7 m. What is the area of this room?

area = base x height

$$\text{area} = 12 \times 7 = 84 \text{ sq. m}$$

Theresa wants new carpeting for her family room. Her family room is a 12 ft by 21 ft rectangle. How much carpeting does she need to buy to cover her entire family room?

$$\text{area} = \text{base} \times \text{height} = 12 \times 21 = 252 \text{ sq. ft}$$

Herbert is decorating the bulletin board in the school's lobby. The bulletin board is a 7 ft by 11 ft rectangle. He decides to add a black border around the entire bulletin board. What is the length of border that he needs?

36 ft

border = perimeter

$$7 + 11 + 7 + 11 = 36$$

$$(2 \times 7) + (2 \times 11) = 36$$

Charles has a rectangular flower garden that is 5 yd long and 12 yd wide. One bag of fertilizer can cover 6 yd². How many bags will he need to buy to cover the entire garden?

$$\text{Area} = 5 \times 12 = 60 \text{ square yards}$$

$$60 / 6 = 10 \text{ bags}$$

The perimeter of a rectangular field is 60 ft and its width is 20 ft. Find the area of this field.

$$20 + 20 = 40$$
$$\text{length} = 10 \text{ ft}$$

$$60 - 40 = 20$$

$$20 / 2 = 10 \text{ ft}$$

$$\text{area} = \text{length} \times \text{width} = 10 \times 20 = 200 \text{ square feet}$$

Before soccer practice, Laura warms up by jogging around the soccer field that is 80 yards by 120 yards. How many yards does she jog if she goes around the field two times?

$$P = 80 + 120 + 80 + 120 = 400 \text{ yards}$$

Twice the perimeter

$$400 \times 2 = 800 \text{ yards}$$

George and Jane are in charge of making a banner for the basketball game this Saturday. How much poster paper will they need for a rectangular shaped banner with a height of 3 feet and a base of 9 feet?

$$3 \times 9 = 27 \text{ square feet of poster paper}$$

Betty wants to install new carpet in her living room. The room length is 15 ft and the width is 15 ft. If the cost of the carpet is \$8 per square foot, what will be the total cost to carpet Betty's living room?

$$a = 15 \times 15 = 225 \text{ square feet}$$

$$225 \times 8 = \$1800$$

After installing the carpet, Betty decides to also install floor wood molding for her living room. The molding will go around the entire room. The molding costs \$4 per foot. What will be the total cost of the molding?

$$p = 15 + 15 + 15 + 15 = 60 \text{ feet}$$

$$60 \times 4 = \$240$$