

Answer Key

Pre-Algebra
Unit 10: Similar Figures
Extra Practice 10.4

1. A rectangle is 10 by 15. It is scaled by a scale factor of 5. What is the perimeter of the new figure?

$$\text{New: } 50 \times 75$$

$$\text{Perimeter: } 250$$

2. A 4 in x 10 in x 12 in triangle is scaled by $\frac{1}{2}$. What is the perimeter of the new triangle?

$$\text{New: } 2 \times 5 \times 6$$

$$\text{Perimeter: } 2 + 5 + 6 = 13 \text{ in}$$

3. A square has side lengths of 0.4 mm. The square is enlarged by a factor of 100. On a grid, each unit is 4mm. What are the dimensions of the new square on the grid?

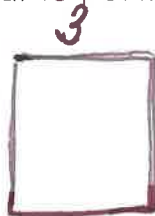
$$0.4 \times 100 = 40$$

$$40 \text{ mm} \div 4 \text{ mm} = 10 \text{ units}$$

$10 \times 10 = \text{New Dimensions}$

4. A playground is 30 yards by 50 yards. It is scaled by $\frac{1}{10}$ in order to fit on a grid. What is perimeter of the scaled playground?

$$\text{New: } 3 \times 5 \text{ yard } 5$$



16 units

5. The perimeter of a rectangle is 30 cm. This rectangle is scaled by a factor of 2. What is the perimeter of the new rectangle?

$$30 \times 2$$
$$60 \text{ cm}$$