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## Problem 1 - Wide and Long

Find the dimensions and area of each figure.

1. Length: $\qquad$ Width: $\qquad$

Area: $\qquad$

2. Length: $\qquad$ Width: $\qquad$

Area: $\qquad$

3. Length: $\qquad$ Width: $\qquad$

Area: $\qquad$

4. How do the dimensions of Rectangle 1 compare to Rectangle 2? The area?
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$\qquad$
5. How do the dimensions of Rectangle 2 compare to Rectangle 3? The area?
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$\qquad$
6. How do the dimensions of Rectangle 3 compare to Rectangle 1? The area?
7. What happens to the area of a figure when the length and width double? Why is this true? $\qquad$
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$\qquad$

## Squares Covering Rectangles

## Problem 2 - Making Predictions

Given the relationship you found in Problem 1, find the area of the unknown figure.
Draw a figure to help show your answer.
8. A rug has an area of 15 square feet. What is the area of the rug measured in square inches?
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9. Joseph is building a new storage building. He thinks the current size, 9' x 6' does not have enough area inside. What will the area be if he doubles the length of the sides?
10. Shelia created a blanket that is 3 feet by 4 feet. Her mom asked what the area is in square inches instead of feet.

## Problem 3 - Finding the Missing Sides

Find the missing sides in each problem. The figures should share the largest side possible.
11. Figure 1: 90 sq inches $\qquad$ $\times$ $\qquad$
Figure 2: 72 sq inches $\qquad$ $\times$ $\qquad$
12. Figure 1: 25 sq feet $\qquad$ $\times$ $\qquad$
Figure 2: 15 sq feet $\qquad$ $\times$ $\qquad$
13. Figure 1: 140 sq yds $\qquad$ $\times$ $\qquad$
Figure 2: 84 sq yds $\qquad$ $\times$ $\qquad$
15.Figure 1: 225 sq feet $\qquad$ $\times$ $\qquad$ Figure 2: 75 sq feet $\qquad$ $\times$ $\qquad$

Use the gcd( feature to find the largest possible side the two figures share. Press MATH $\square$ ENTER, then enter $90 \square 720$ and press ENTER to evaluate.
$\qquad$ $\times$ $\qquad$
14.Figure 1: 100 sq cm $\qquad$ $\times$ $\qquad$
Figure 2: 80 sq cm

