



Comparing Areas of Rectangles

Student Activity

Name _____

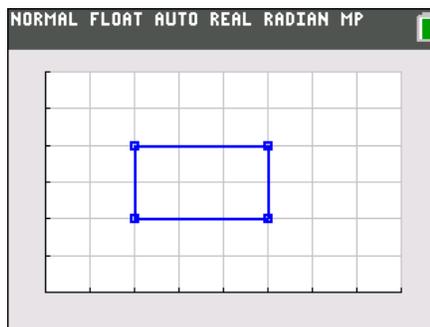
Class _____

Part 1 – Wide and Long

Find the dimensions and area of each figure.

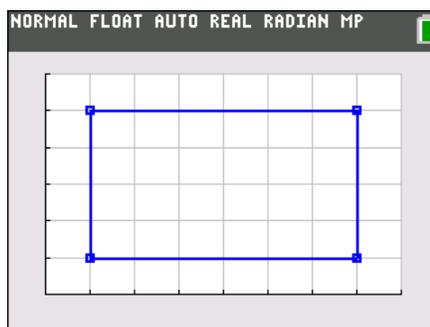
1. Length: _____ Width: _____

Area: _____



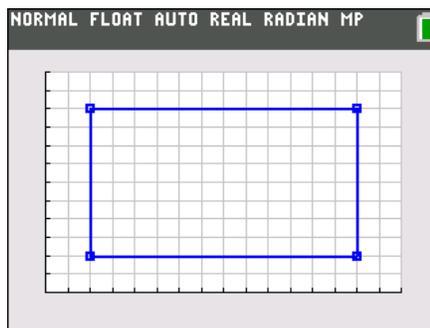
2. Length: _____ Width: _____

Area: _____



3. Length: _____ Width: _____

Area: _____



4. How do the dimensions of Rectangle 1 compare to Rectangle 2? The area?

5. How do the dimensions of Rectangle 2 compare to Rectangle 3? The area?

6. How do the dimensions of Rectangle 3 compare to Rectangle 1? The area?



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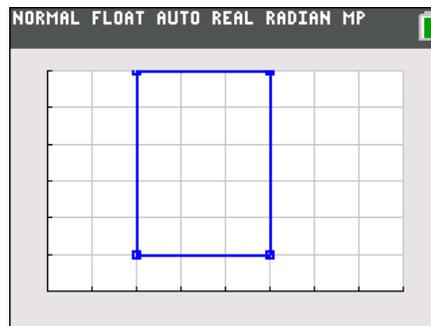
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7. What happens to the area of a figure when the length and width double? Why is this true?

Part 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?



9. Joseph is building a new storage building. He thinks the current size, $9' \times 6'$ 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. _____

Part 3 – Finding the Missing Sides

Two rectangles are drawn sharing a common side. The figures should share the largest side possible. Find the missing sides in each problem.

11. Figure 1: 90 sq inches _____ \times _____
 Figure 2: 72 sq inches _____ \times _____

Use the **gcd(** feature to find the largest possible side the two figures share. Press **MATH** \blacktriangleright **9**, then enter **9** **0** **,** **7** **2** **)** and press **ENTER** to evaluate.

12. Figure 1: 25 sq feet _____ \times _____
 Figure 2: 15 sq feet _____ \times _____
14. Figure 1: 100 sq cm _____ \times _____
 Figure 2: 80 sq cm _____ \times _____

13. Figure 1: 140 sq yds _____ \times _____
 Figure 2: 84 sq yds _____ \times _____
15. Figure 1: 225 sq feet _____ \times _____
 Figure 2: 75 sq feet _____ \times _____