

7.G.1: Worksheet

1. What are the new dimensions if we shrink the triangle in Figure 1 by a factor of $\frac{1}{2}$?

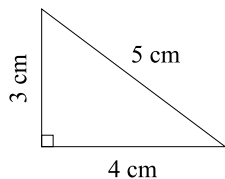


Figure 1.

2. Expand the rectangle in Figure 2 by a factor of 3 and redraw it, labeling the dimensions.

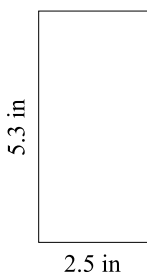


Figure 2.

3. What are the new dimensions if we expand the parallelogram in Figure 3 by a factor of 4.5?

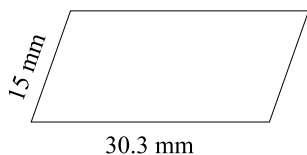


Figure 3.

4. Reduce the triangle in Figure 4 by a factor of 0.25 and redraw it, labeling the dimensions.

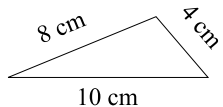


Figure 4.

5. The Empire State Building is 1250 feet tall. Brock makes a scale model of the building at 1:625 of its actual size. How tall is the model?

6. What's the scale factor between the two trapezoids in Figure 5 (starting with the smaller one)?

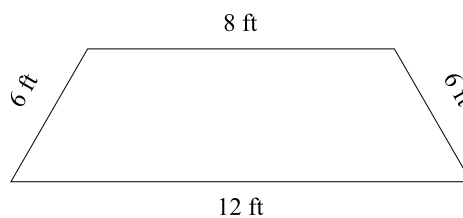
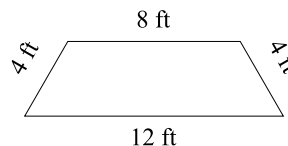


Figure 5.

7. If the triangle in Figure 6 is expanded by a factor of 4, what's the new triangle's area?

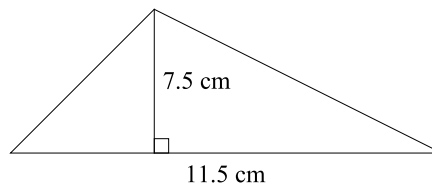


Figure 6.

8. If a rectangle that's 13 ft long and 4.3 ft wide is tripled in size, what's the new rectangle's area?

9. The mad scientist Dr. X throws his favorite picture frame into his Enlarging Machine so it'll fit his huge One Direction poster. If the frame had an area of 216 in^2 before and 864 in^2 after he enlarged it, what scale factor did the machine use?

10. A square with an area of 196 in^2 is reduced by a factor of $\frac{1}{2}$. How long are the new square's sides?