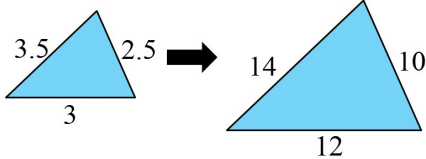
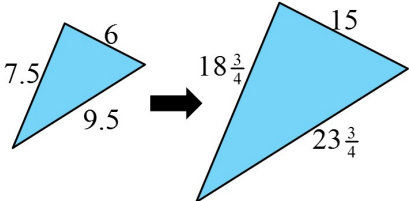
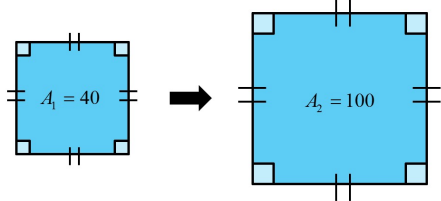
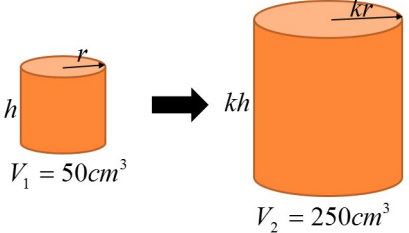


Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Section 5.3 Math 8 Enriched: Finding Scaled Factors for Lengths, Areas and Volumes**

1. Find the scaled factor for each of the diagrams:

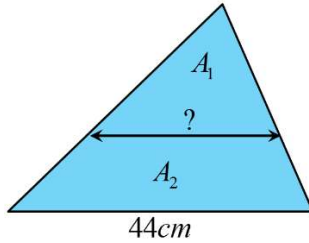
2. Given that the side lengths of the larger cube is 3 times larger than the side length of the smaller cube, how many times bigger is the larger surface area?

3. The dimensions of a picture is increased by 30%, how many times larger is the area of the new picture?

4. The area of a photo is to be increased by 100%, how much should the length and width be increased by?

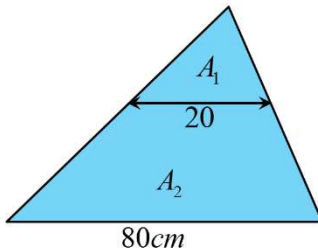
5. The area of a photo is to be increased by 800%, how much should the length and width be increased by?
  
  
  
  
  
  
  
  
  
  
6. A fast food restaurant is offering a super-sized drink, where the volume of its cup is increased by 60%. How many times will the radius of the cup be increased by?
  
  
  
  
  
  
  
  
  
  
7. The side lengths of a square is increased by 25%, what is the ratio of the new area compared to the old area?
  
  
  
  
  
  
  
  
  
  
8. The area of two similar triangles have a ratio of 125 : 1000. What is the ratio of their side lengths?
  
  
  
  
  
  
  
  
  
  
9. The area of a photo is decreased by 20%. What should the length and width be multiplied by?

10. The base of a triangle is 44cm. A line parallel to the base is drawn such that it cuts the triangle in half. What is the length of this line?

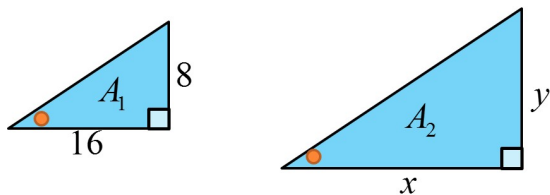


11. The volume of a cube is 50cm<sup>3</sup> and it's surface area is increased by 300%. What is the volume of the new cube?

12. What is the ratio of  $A_1$  to  $A_2$ ?



13. The two triangles have a combined area of 300cm<sup>2</sup>. What is the value of "x" and "y"?



14. A 1cm by 1cm by 1cm cube is increased by a factor of "k". The value of the surface area is now equal to the volume. What is the value of "k"?