

**ASSIGNMENT 7-2
SIMILAR FIGURES**

**NO WORK = NO CREDIT
WORK IN PENCIL ONLY!**

UNIT 7: SHAPES

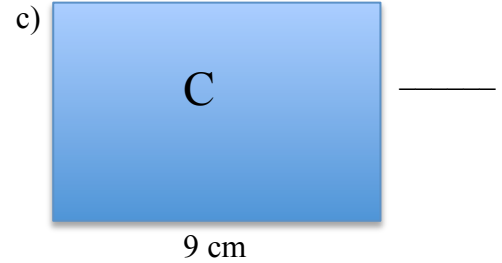
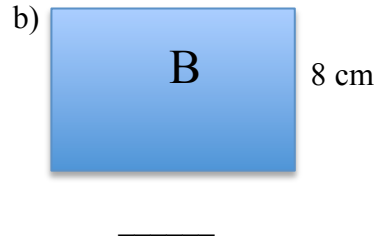
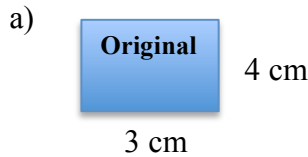
Each of the three figures below are similar within the set.

1. Fill in the blanks for the missing measurements for figures B and C.

What is the area of the original figure? _____

What is the scale factor for taking the original to B _____? What is the area of figure B? _____

What is the scale factor for taking the original to C _____? What is the area of figure C? _____

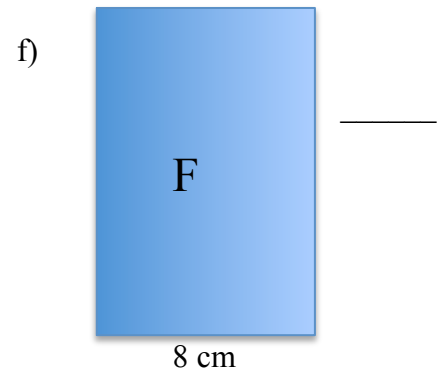
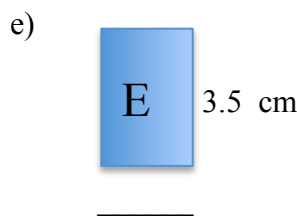
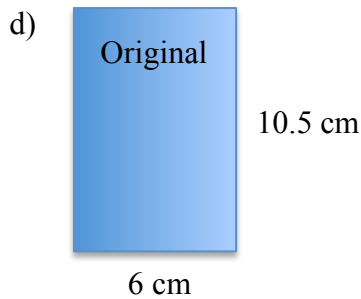


2. Fill in the blanks for the missing measurements for figures D and F.

What is the area of the original figure? _____

What is the scale factor for taking the original to E _____? What is the area of figure E? _____

What is the scale factor for taking the original to F _____? What is the area of figure F? _____

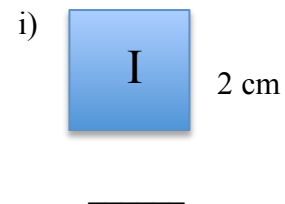
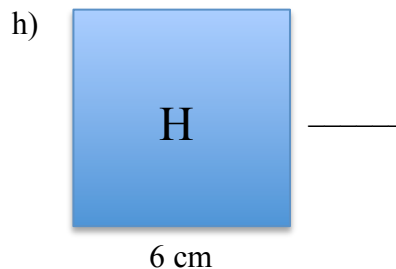
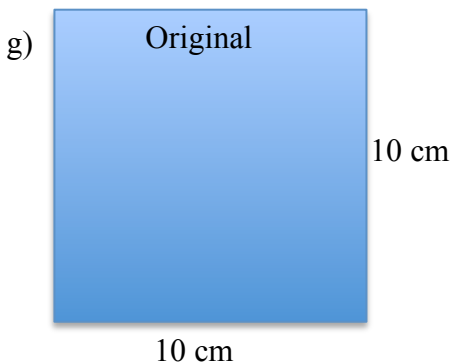


3. Fill in the blanks for the missing measurements for figures H and I.

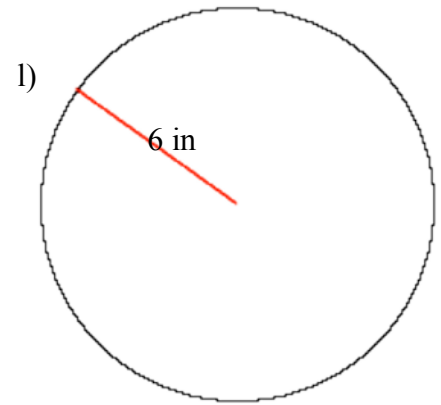
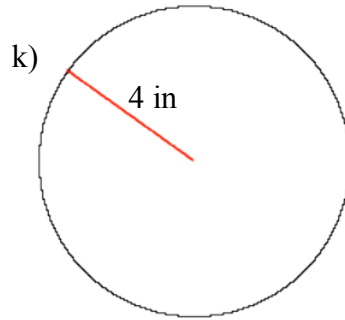
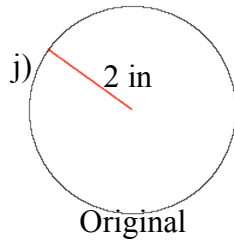
What is the area of the original figure? _____

What is the scale factor for taking the original to H _____? What is the area of figure H? _____

What is the scale factor for taking the original to I _____? What is the area of figure I? _____



4. What is the scale factor from the original to circle K _____?
What is the scale factor from the original to circle L _____?



Solve the following Equations and Inequalities

5. $9w - 4 \geq 23$

6. $-3x + 12 - 2x = -23$

7. $\frac{r}{-2} + 10 < -2$

8. You're a teacher in a 7th grade math class and you want to create an experiment for your class with red, yellow and purple marbles in a bag. You want the theoretical probability of drawing a red marble to be $\frac{1}{2}$, the theoretical probability of drawing a yellow to be $\frac{1}{4}$ and the theoretical probability of drawing a purple to also be $\frac{1}{4}$. If you want a total of 80 marbles in the bag:
- How many red marbles are you going to put in the bag? Why?
 - How many yellow marbles are you going to put in the bag? Why?
 - How many purple marbles are you going to put in the bag? Why?