

# Unit 5 Revisited

Name \_\_\_\_\_

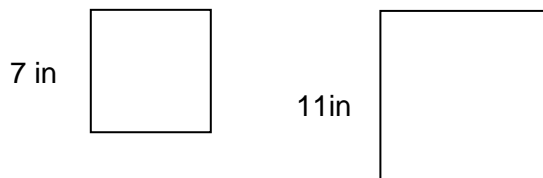
6<sup>th</sup> Period

You are to complete ALL of the following problems. You MUST SHOW WORK or you will not get credit for any of your answers. Circle all your answers!!

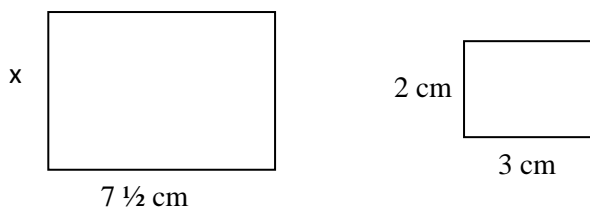
8) One vertex of a triangle on the coordinate plane has the ordered pair of (20, 40). The triangle undergoes 20% dilation. What would be the new coordinates of the corresponding vertex?

12) Chris casts a 10 ft long shadow. He is standing next to a building that is 27 ft tall and casts a shadow that is 45 ft long. How tall is Chris?

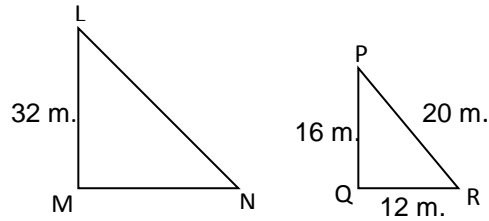
15) Determine the scale factor of the enlargement of the first figure to the second figure.



17) Find the area of the larger similar rectangle.



18) In the diagram below,  $\triangle LMN \sim \triangle PQR$ .



Using the diagram above, what is the perimeter of  $\triangle LMN$  ?

19) The sides of two regular hexagons have a ratio of 2:5. If the perimeter of the larger hexagon is 45 cm, what is the perimeter of the smaller hexagon?

20) A triangle has an area of 4 square cm. and a similar triangle has an area of 36 square cm. What is the scale factor of the sides for these similar triangles?

22) A vertex of a rectangle on the coordinate plane is  $(-4, -2)$ . The rectangle is dilated and the new coordinate of the vertex is  $(-1, \frac{-1}{2})$ . What was the scale factor of the dilation?