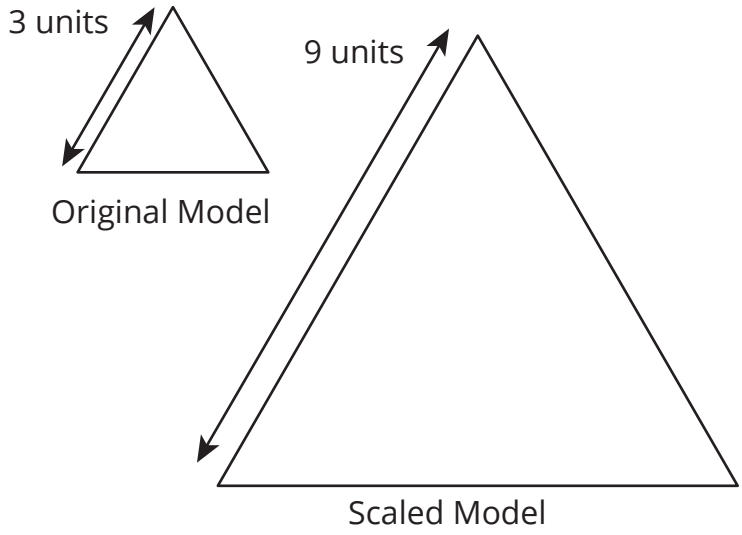
Scaling Regular Figures

Name:_____ Date:_____

To scale is to shrink or stretch sides length by multiplying it. The change can be seen from one model figure to another.



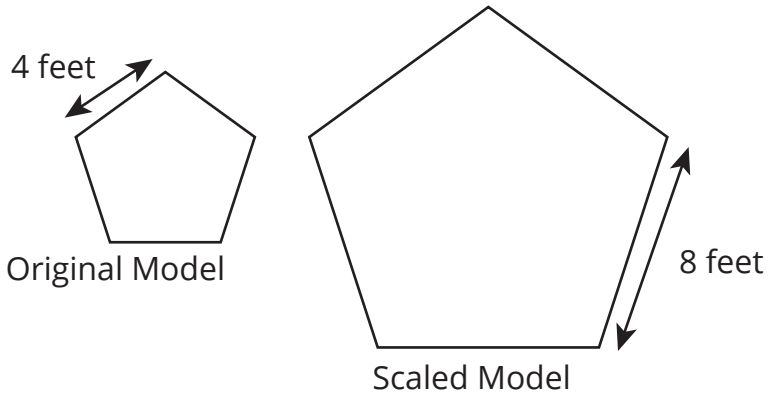
The scale of these two figures can be expressed as:
3 by (?) = 9 or, 3 x (?) = 9

Solving the equation shows:
3 x 3 = 9, hence:
3 is scaled by 3 to equal 9

We can also say:
3 is scaled by a factor of 3 to equal 9

Inversely, we can say:
9 x 1/3 = 3, 9 is scaled by 1/3 to equal 3

Directions: Use the diagram below to answer the following questions.



Exercises:

1. What is the Original Model scaled by, to create the Scaled Model?

_____

2. What is the Scaled Model scaled by, to create the Original Model?

_____

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3. Describe a pentagon where of the Scaled Model above, is scaled by a factor of 3.

4. Describe a pentagon where of the Original Model above, is scaled by a factor of 4?

5. Describe a pentagon, when scaled by 2, makes the Original Model, shown above.

Connections: What does it mean for something to be at scale?

_____

_____

(Explain your answer with pictures, words, and numbers.)