

Name: _____

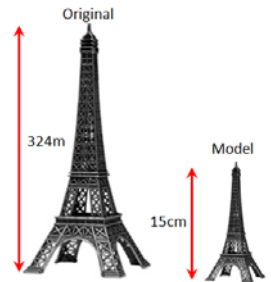
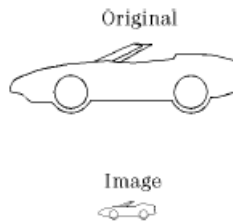
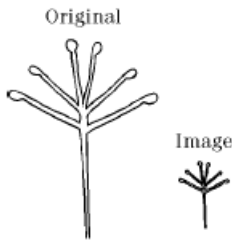
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Math 9: HW Section 7.2 Scaled Factors

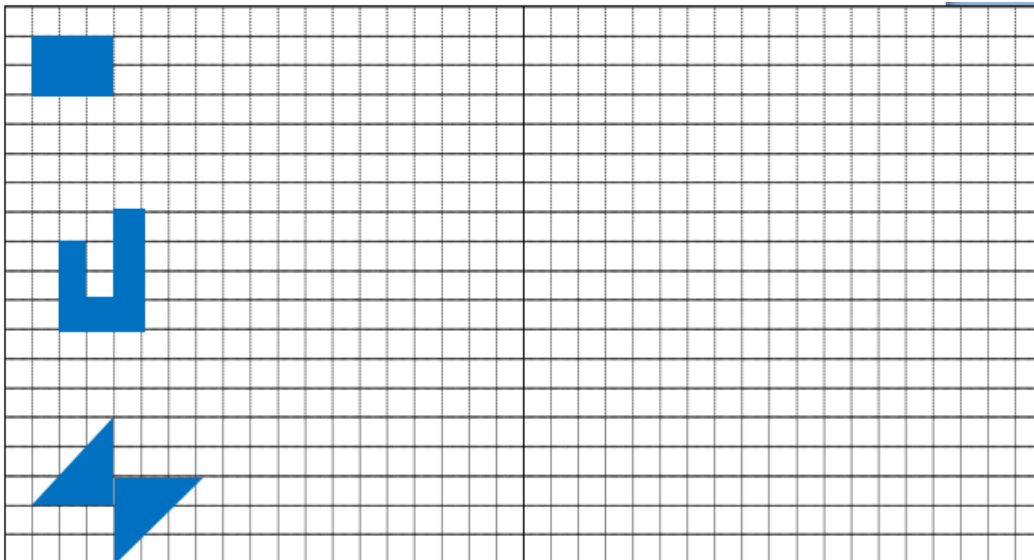
1. Given each of the following equations, find the value of "x":

a) $\frac{3}{5} = \frac{x}{10}$	b) $\frac{2}{8} = \frac{x}{12}$	c) $\frac{7}{20} = \frac{x}{60}$	d) $\frac{12}{14} = \frac{x}{21}$
e) $\frac{4}{11} = \frac{2x}{33}$	f) $\frac{4}{15} = \frac{10}{x}$	g) $\frac{12}{x} = \frac{6}{10}$	h) $\frac{3}{5} = \frac{3x}{4}$

2. Given the following two shapes, use a ruler to determine the scale factor:



3. Given each of the following images on the left, draw a scaled diagram with a scaled factor of 2.5:



4. The average length of a BMW 325xi is about 4.85meters long. A toy model of this car is reduced at a scaled factor of 0.25. What is the length of the toy model?

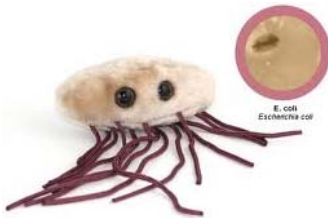
5. The distance between Vancouver and Seattle is 226.5km. The distance between the two cities on a map is about 2.3cm apart. What is the scaled factor of the map?

6. The scaled factor of a map $1/200,000,000$. If the distance between the two cities on a map is 5.5cm, how far are they apart in the real world?

7. The Tumbler from Batman Returns has a length of 4.6 meters long. A toy model of this vehicle is 25cm long. What is the scaled factor?



8. The length of an E. coli bacteria is about 0.005mm long. A toy E. coli bacteria has a length of 35cm long. What is the scaled factor of the toy?



9. An architect builds a model of a building at a scaled factor of 0.0003. If the model has a length of 85cm long and 75cm wide, what is the length and width of the actual building in meters? What is the area of the building?

10. A little photograph measuring 10cm by 15cm is enlarged by a scaled factor of 10.5. What is the area of the enlarged picture in cm^2 ?