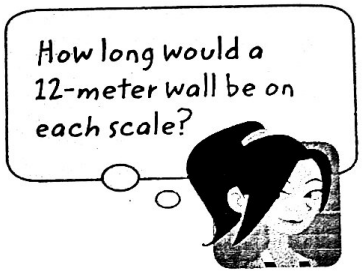
Name: _____

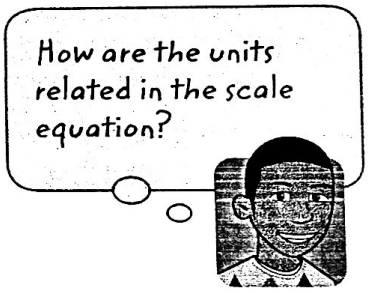
Solve the problems.

1 Sara uses a scale of 1 cm : 12 m to draw a floor plan of a new store. She has to redraw the drawing so that it is larger for her presentation. Could Sara use the following scales? Select *Yes* or *No* for each scale.



a.	1 cm : 8 m	☐ Yes	☐ No
b.	1 cm : 20 m	☐ Yes	☐ No
c.	2 cm : 24 m	☐ Yes	☐ No
d.	3 cm : 15 m	☐ Yes	☐ No

2 Gregory draws a scale drawing of his room. The scale that he uses is 1 cm : 4 ft. On this drawing, the room is 3 centimeters long. Which equation can be used to find the actual length of Gregory's room?



A $\frac{1}{4} = \frac{x}{3}$

B $\frac{x}{4} = \frac{1}{3}$

C $\frac{1}{4} = \frac{3}{x}$

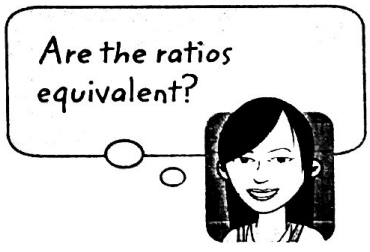
D $\frac{1}{x} = \frac{4}{3}$

Rob chose **A** as the correct answer. What did he do wrong?

_____

_____

3 Jon planned a bicycle ride for several of his friends. On his map, 1 inch represents 2.5 miles of actual distance. Which statements are true? Select all that apply.



A The scale of the map is 1 in. : 2.5 mi.

B A distance of 50 miles on the ride is represented by 20 inches on the map.

C Every 20 miles of the ride is represented as 2.5 inches on the map.

D A distance of 5 inches on the map represents 15 miles on the ride.

Solve.

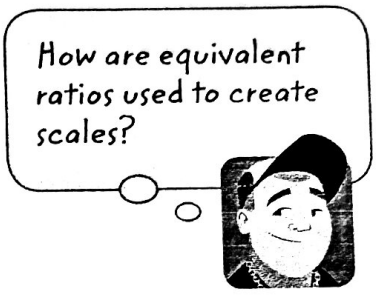
4 The scale used to make a scale model of a volcano is 5 cm : 250 m. The height of the actual volcano is about 1,325 meters. How tall is the model?

A 26.5 cm

B 265 cm

C 5.3 m

D 26.5 m



5 Petra wants to represent a distance of 400 miles on a piece of notebook paper that is 8.5 inches wide and 11 inches long. She wants to use a scale of 1 in. = 20 mi.

a. Can Petra make this scale drawing? Why or why not?

_____

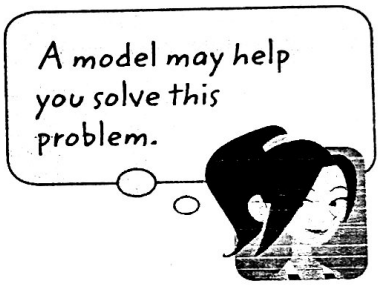
_____

_____

_____

b. Give an example of a scale that Petra could use. Use the form of 1 in. = ? mi for the scale.

_____



6 A science museum has a scale model of a ladybug. In the model, 50 centimeters represents 9 millimeters. The length of the model is 1 meter. How long is the actual ladybug?

Show your work.

Solution: _____