Scale Drawings

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
 N

 b. 1 cm: 20 m
 Yes
 N

 c. 2 cm: 24 m
 Yes
 N

 d. 3 cm: 15 m
 Yes
 N

How long would a 12-meter wall be on each scale?

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

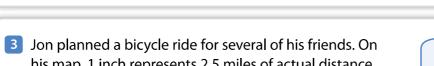
C $\frac{1}{4} = \frac{3}{x}$

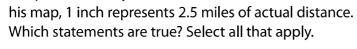
B $\frac{x}{4} = \frac{1}{3}$

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

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

How are the units related in the scale equation?





- **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.

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?				How are equivalent ratios used to create scales?
Α	26.5 cm	C 5.3 m		scales
В	265 cm	D 26.5 m		
pie	cra wants to represent a cree of notebook paper the inches long. She wants to Can Petra make this sca	at is 8.5 inches volumes at is 8.5 inches volumes.	wide and I in. = 20 mi.	A model may help you solve this problem.
b.	Give an example of a so the form of 1 in. = ? m		ould use. Use	
the The act	cience museum has a sca model, 50 centimeters re e length of the model is ual ladybug? DW your work.	epresents 9 mill	imeters.	Write an equation to relate the ratios.
Soli	ution:			

