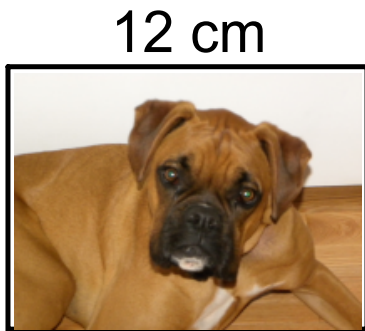


Warm Up

March 29, 2011

Draw the following rectangle [actual measurements]



Draw a reduction with a scale factor of $\frac{1}{4}$

$$12 \times \frac{1}{4} = \frac{12}{4}$$

3 cm

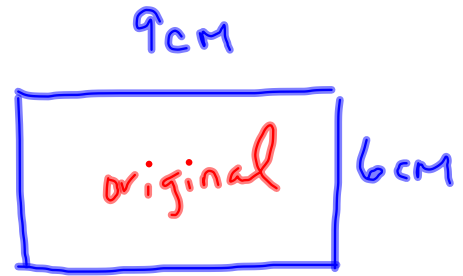
$$6 \times \frac{1}{4} = \frac{6}{4}$$

1.5



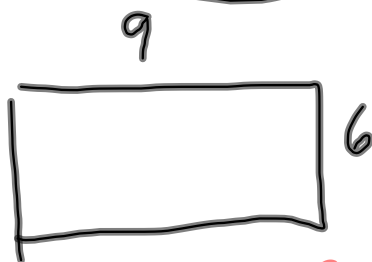
$$12 \times 0.25$$

This photo ~~of a house~~ has dimensions 9 cm by 6 cm.
 The photo is to be enlarged by a scale factor of $\frac{7}{2} = 3\frac{1}{2}$.
 Calculate the dimensions of the enlargement.



A) $9 \times \frac{7}{2} = 31.5$
 B) $9 \times 3.5 = 31.5$

A) $6 \times \frac{7}{2} = 21$
 B) $6 \times 3.5 = 21$



$9 \times \frac{2}{3} = \frac{18}{3} = 6$

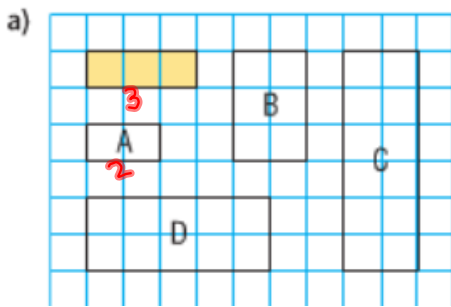
$6 \times \frac{2}{3} = \frac{12}{3} = 4$

Scale Factor $\frac{2}{3} = 0.\bar{6}$
 What are the new dimensions?

Assessment Focus For each set of diagrams

below, identify which of diagrams A, B, C, and D are scale diagrams of the shaded shape. For each scale diagram you identify:

- i) State the scale factor.
- ii) Explain how it is a scale diagram.



Original Diagram

length 2 width 1

Shape A

$$\frac{\text{shape A length}}{\text{original length}} = \frac{2}{3}$$

$$\frac{\text{shape A width}}{\text{original width}} = \frac{1}{1}$$

Shape B

$$\frac{\text{shape B length}}{\text{original length}} = \frac{3}{3}$$

$$\frac{\text{shape B width}}{\text{original width}} = \frac{3}{1}$$

Shape C

yes
Scale Factor 2

$$\frac{\text{shape C length}}{\text{original length}} = \frac{6}{3}$$

$$\frac{\text{shape C width}}{\text{original width}} = \frac{3}{1}$$

$$\frac{\text{shape D length}}{\text{original length}} = \frac{5}{2}$$

$$\frac{\text{shape C width}}{\text{original width}} = \frac{3}{1}$$



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[add a third column called "side length of scaled diagram"]

#6

#7

#11

b