



## Scale Diagrams:

Day 2

Warm Up March 29

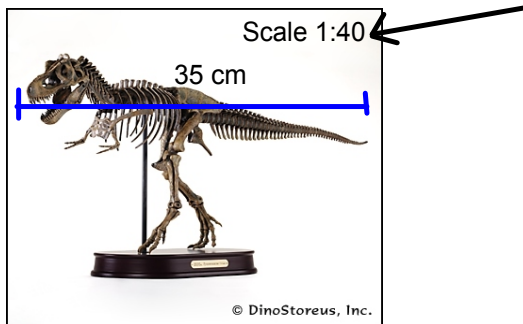


1) An original photo of a cat has dimensions 18 cm by 40.5 cm. A second picture is made using a scale factor of 0.4. Determine the dimensions of the scaled picture. (Show your work)

Is this an enlargement or a reduction?

**To find lengths of the scale picture:**

2) The following is a scale diagram of "Sue" the T-Rex. Using the ratio determine the true length of Sue



1:40

To find the original size:

$$SF = 0.025$$

$$\theta = \frac{35 \text{ cm}}{0.025}$$

$$\theta = 1400 \text{ cm}$$

SUE IS A SENSATION. It's not just that she's 42 feet long (14 m) and 65 million years old. She's the world's most complete, best preserved, and largest *Tyrannosaurus rex* skeleton. More than 10,000 visitors went to her May 17, 2000, debut at Chicago's Field Museum of Natural History.



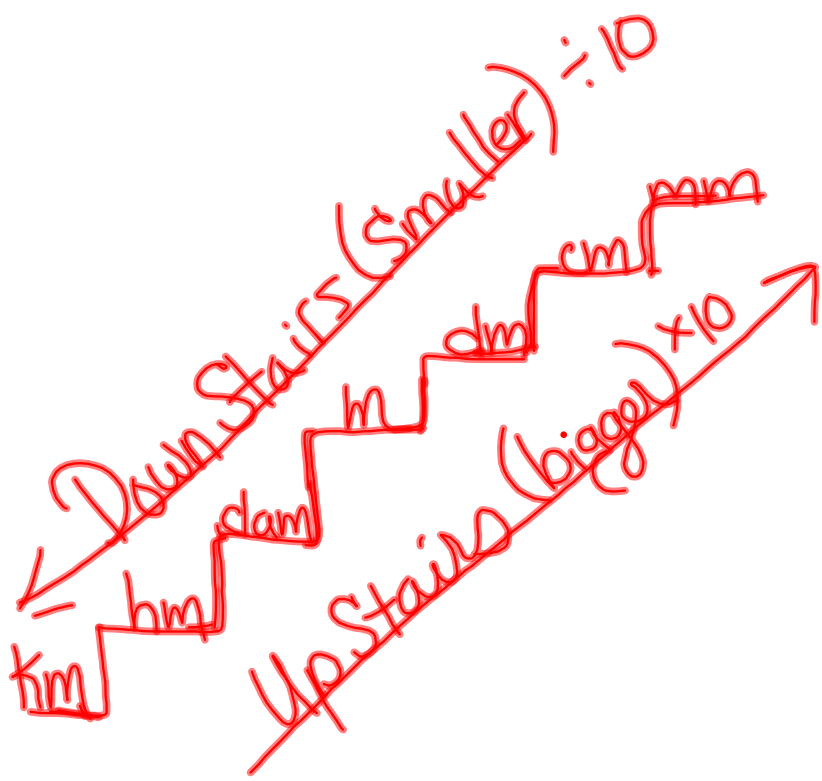
$$\text{Scale Factor} = \frac{\text{Length of Scale Diagram}}{\text{Length of Original Diagram}}$$

**To find lengths of the scale picture:**

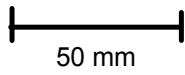
original x scale factor

**To find the original size:**

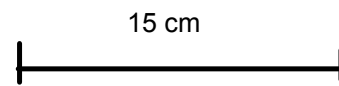
Scale ÷ Scale factor



scale



original



Find the Scale FACTOR  
Must have same units