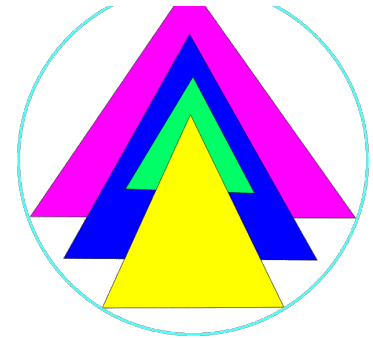


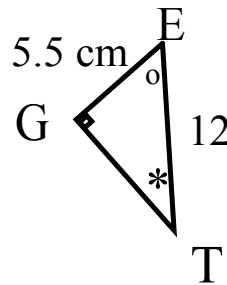
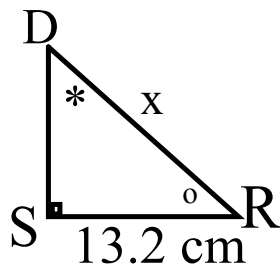
Similar Triangles

Day 3

April 14, 2015



- i) Write the Similarity Statement
- ii) Ratios
- iii) Fill in ratios
- iv) solve for "x"



$$\triangle DRS \sim \triangle TEG$$

$$\frac{DR}{TE} = \frac{RS}{EG} = \frac{DS}{TG}$$

$$\frac{x}{12} = \frac{13.2}{5.5}$$

$$x = \frac{12(13.2)}{5.5}$$

$$= 28.8 \text{ cm}$$

Overview

To Find **Scale Factor** = $\frac{\text{Scale Length}}{\text{Original Length}}$



Given scale factor As a decimal or fraction

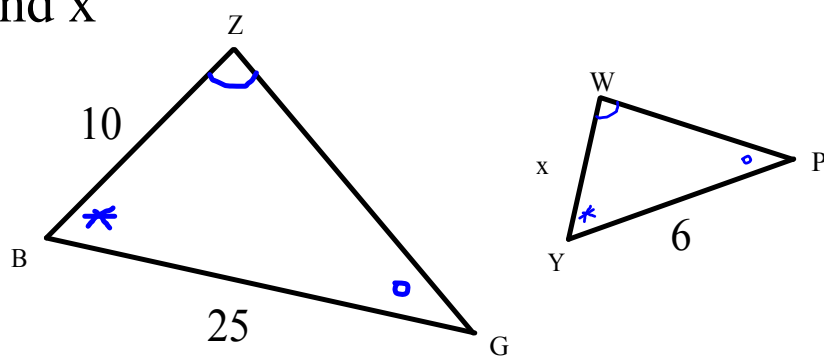
Find the scale
original \times scale factor

Find the original
scale \div scale factor

Example: If the original distance is 17km what is the distance on a map if the scale factor is 0.15

$$\begin{aligned} \text{Scale diagram} &= 17(0.15) \\ &= 2.55 \text{ km} \end{aligned}$$

Find x

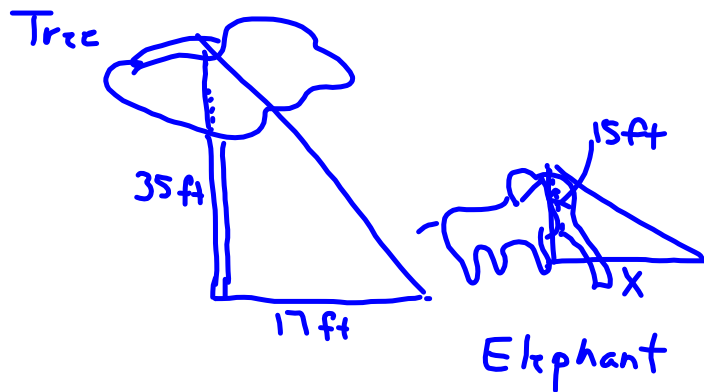


$$\frac{x}{10} = \frac{6}{25}$$

$$x = \frac{10(6)}{25}$$
$$= 2.4$$



A tree is 35 ft tall cast a shadow that is 17 ft long. Find the length of an elephant's shadow whose height is 15 ft tall.



$$\frac{x}{17} = \frac{15}{35}$$

$$x = \frac{17(15)}{35} \\ = 7.3 \text{ ft}$$

Homework



Mid-Unit Review Page 352

omit #3