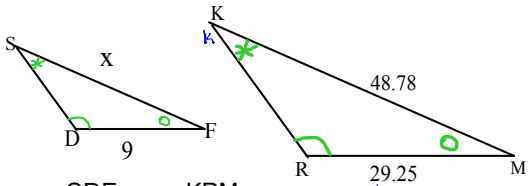
Similar Triangles

Day 2

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



SDF ~ KRM

$\frac{SD}{KR} = \frac{SF}{KM} = \frac{DF}{RM}$

$\frac{x}{48.78} = \frac{9}{29.25}$

cross multiply

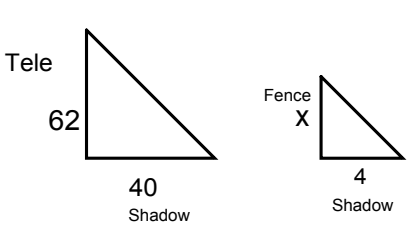
$29.25x = (9)(48.78)$

$29.25x = 439.02$

$\frac{29.25x}{29.25} = \frac{439.02}{29.25}$

$x = 15.01$

A telephone pole that is 62 ft tall cast a shadow that is 40 ft long. Find the height of a fence pole that cast a 4 ft shadow.



$\frac{62}{40} = \frac{x}{4}$

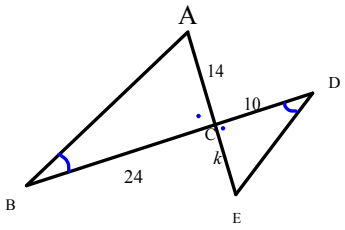
$40x = 62(4)$

$40x = 248$

$\frac{40x}{40} = \frac{248}{40}$

$x = 6.2$

Write a similarity statement and ratios, then find "k"



$\Delta ABC \sim \Delta EDC$

$\frac{AB}{ED} = \frac{BC}{DC} = \frac{AC}{EC}$

$\frac{24}{10} = \frac{14}{k}$

$24k = 14(10)$

$24k = 140$

$\frac{24k}{24} = \frac{140}{24}$

$k = 5.8333$

$\Delta CDE \sim \Delta CBA$

$\frac{CE}{CA} = \frac{CD}{CB} = \frac{DE}{BA}$

$\frac{k}{14} = \frac{10}{24}$

$k = \frac{14(10)}{24}$

$= 5.8\overline{3}$

In class assignment

a) $\frac{x}{5} = \frac{16}{4}$

$x = \frac{16(5)}{4}$

$= 20$

b)

Complete + submit...

Homework

page 350 - 351

9, 10 - 15

Quiz Monday

Scale factor

$\left\{S.F. = \frac{S}{O}\right\}$