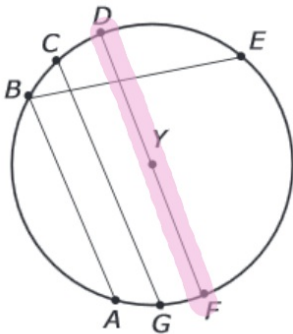


January 21, 2015^{4th} Starter

1. Point Y is the center of the circle.

2
 $\frac{DF}{FD}$



$\frac{DYF}{FYD}$

Which line segment shows the diameter of the circle?

2. Complete the sequence.

0.120, 0.230, 0.340, 0.450
 110 110 110

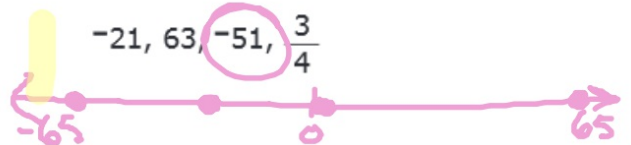
3. Write the number that balances the equation.

$$24 + (3 + 6) = (24 + 3) + \underline{6}$$

Associative Property

4. Which of these values is the least?

-21, 63, -51, $\frac{3}{4}$



5. Solve for the value of x.

$$9x + 2 = 65$$

$$\underline{-2 \quad -2}$$

$$9x = \underline{63}$$

$$\underline{\quad 9 \quad 9}$$

$$x = \underline{7}$$

Fontdiner

1/21 Shadow Problems using Proportion

Remember: You can find missing measurements in similar figures by using proportions.

These two triangles are similar.

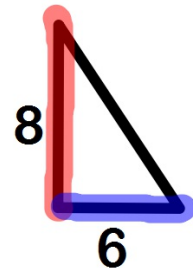
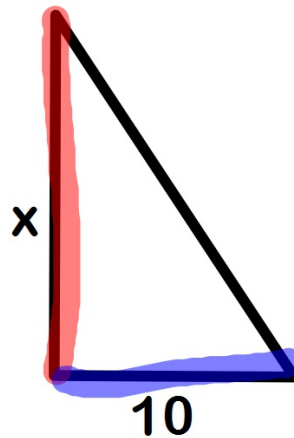
Find the missing side measurement

$$\frac{6 \cdot X}{6 \cdot 10} = \frac{8 \cdot 10}{6 \cdot 10}$$

$$\frac{6x - 80}{60} = \frac{80}{60}$$

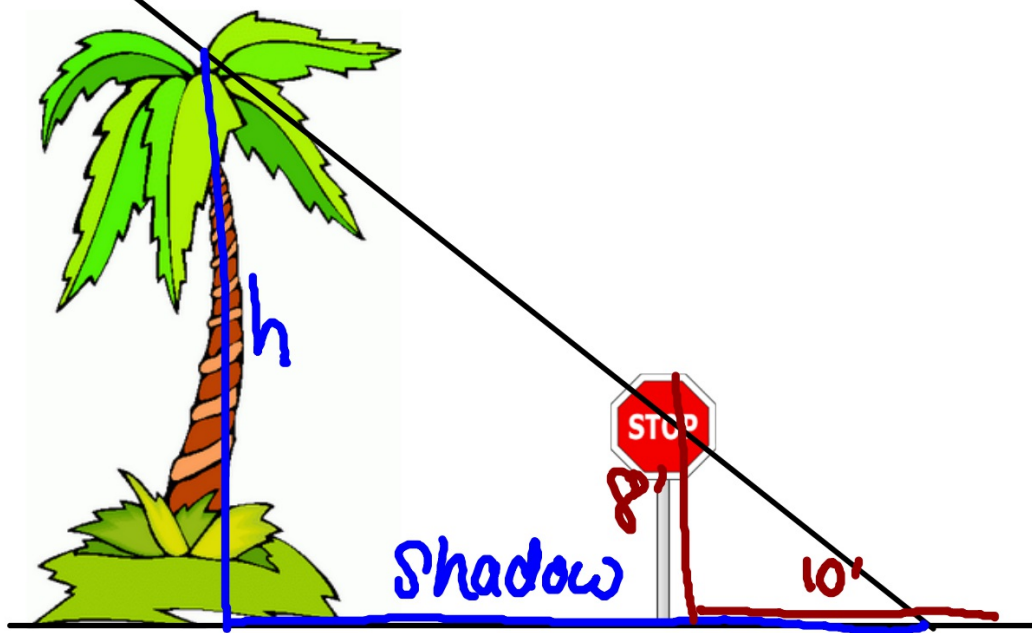
$$\frac{6x}{6} = \frac{80}{6}$$

$$x = 13\frac{1}{3}$$



You can find the height of tall things without ever leaving the ground! Use Proportions!!

How tall is this palm tree?



You can find the height of tall things without ever leaving the ground! Use Proportions!!

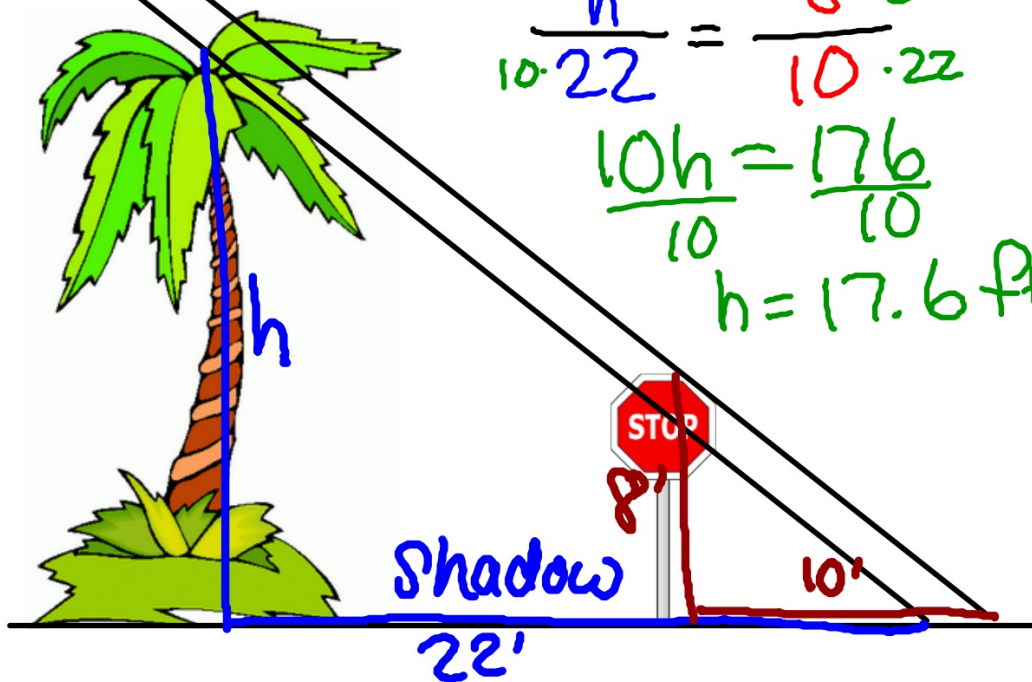
How tall is this palm tree?

$$\begin{array}{r} 22 \\ \times 8 \\ \hline 176 \end{array}$$

$$\frac{10 \cdot h}{10 \cdot 22} = \frac{8 \cdot 22}{10 \cdot 22}$$

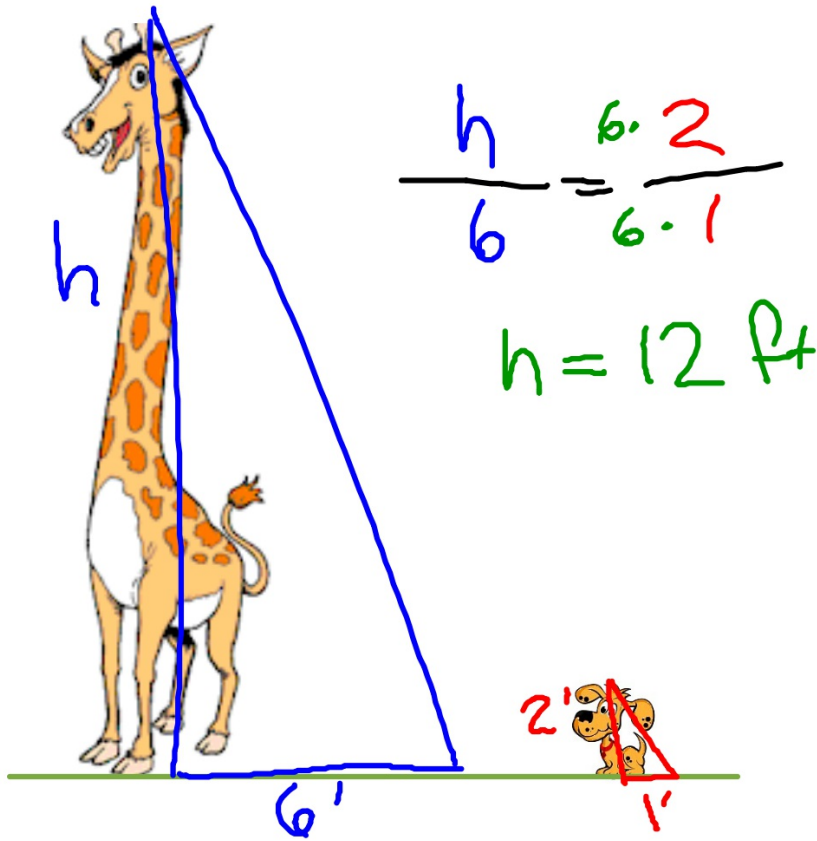
$$\frac{10h}{10} = \frac{176}{10}$$

$$h = 17.6 \text{ ft}$$

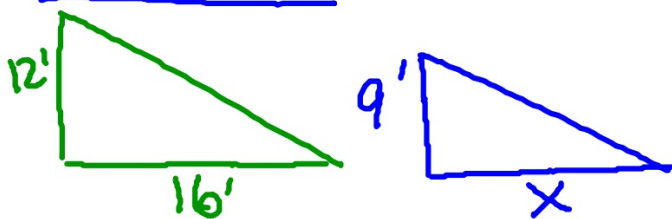




Find the height of this giraffe.



If a 12 ft tall statue casts a 16 ft long shadow
then how long is the shadow that a 9 ft tall
adult elephant casts?

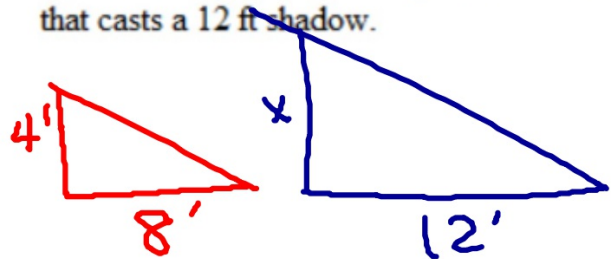


$$\frac{\cancel{3} \cdot 12}{3 \cdot 16} = \frac{\cancel{9} \cdot 4}{x \cdot 4}$$

$$\frac{48}{4} = \frac{4x}{4}$$

$$12' = x$$

A bird bath that is 4 ft tall casts a shadow that is 8 ft long. Find the height of a woman that casts a 12 ft shadow.



$$\frac{12 \cdot 4}{\cancel{12} \cdot 8} = \frac{x \cdot 8}{\cancel{12} \cdot 8}$$

$$\frac{48}{8} = \frac{8x}{8}$$

$$6ft = x$$

Homework

Blue WS3

Due Thursday