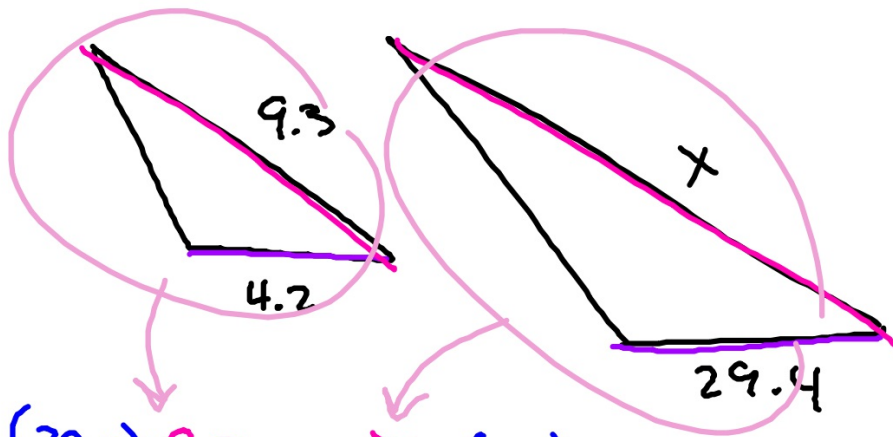


# January 20, 2015 <sup>1<sup>st</sup></sup> Starter <sub>2<sup>nd</sup></sub>

There are 30 houses on Bruin Boulevard and each of them need to be numbered. If none of the numbers can use a 3 and none can be multiples of 5 or 7, what is the number of the last house?



Fontainer



$$\frac{(29.4) 9.3}{(29.4)(4.2)} = \frac{x (4.2)}{(29.4)(4.2)}$$

$$\frac{273.42}{4.2} = \frac{4.2x}{4.2}$$

$$65.1 = x$$

## 1/20 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

Corresponding sides are lined up.

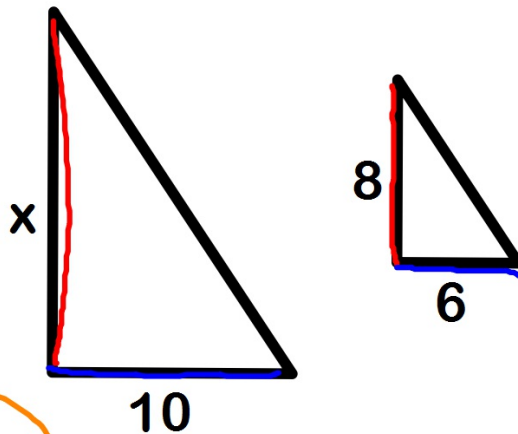
$$\frac{6 \cdot X}{6 \cdot 10} = \frac{8 \cdot 10}{6 \cdot 10}$$

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

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

$$x = 13.\bar{3}$$

Round to the nearest tenth.  $\rightarrow 13.3$

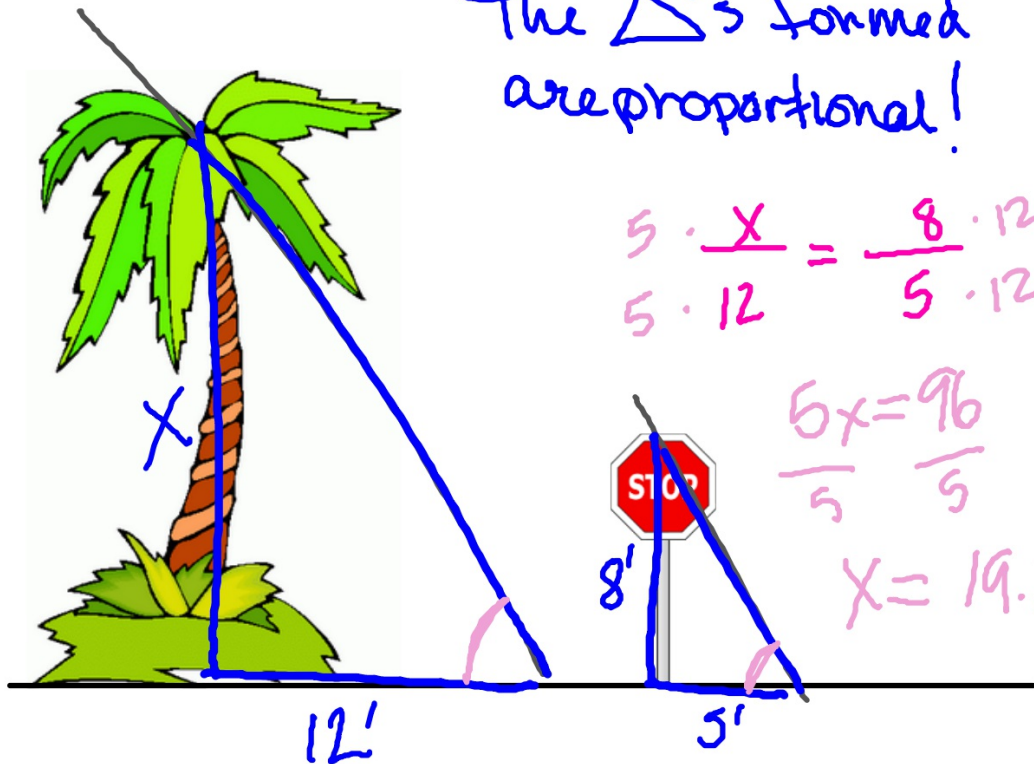




You can find the height of tall things without ever leaving the ground! Use Proportions!!

How tall is this palm tree?

The  $\Delta$ 's formed are proportional!



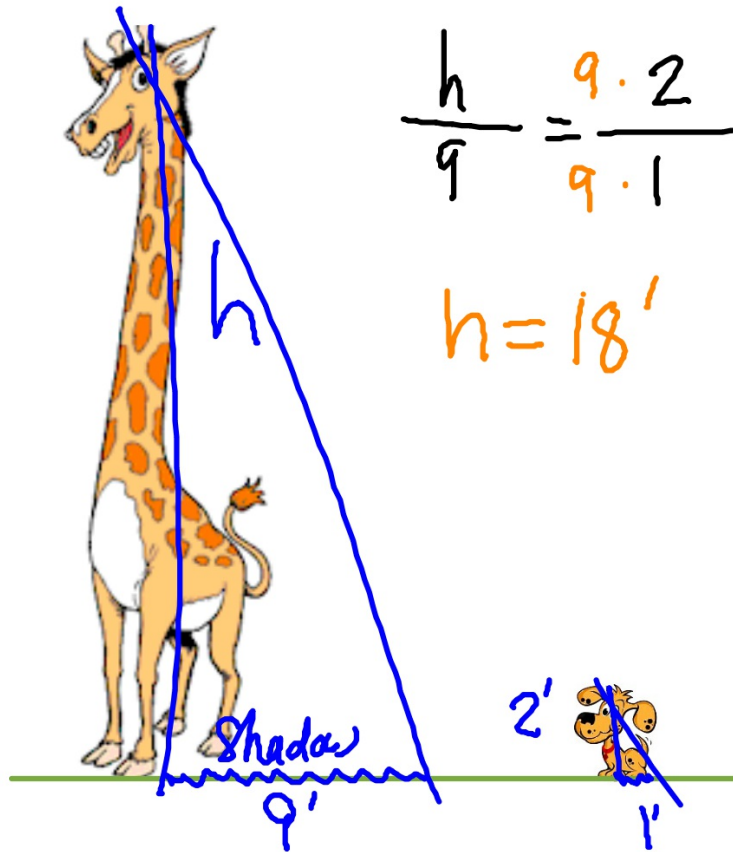
$$\frac{5 \cdot X}{5 \cdot 12} = \frac{8 \cdot 12}{5 \cdot 12}$$

$$\frac{5x}{5} = \frac{96}{5}$$

$$x = 19.2'$$



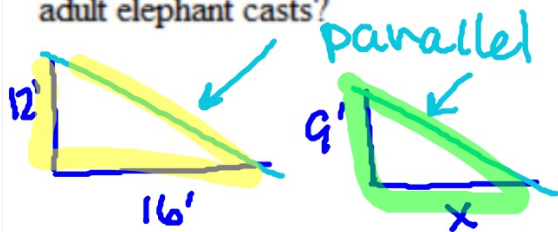
Find the height of this giraffe.



$$\frac{h}{9} = \frac{9 \cdot 2}{9 \cdot 1}$$

$$h = 18'$$

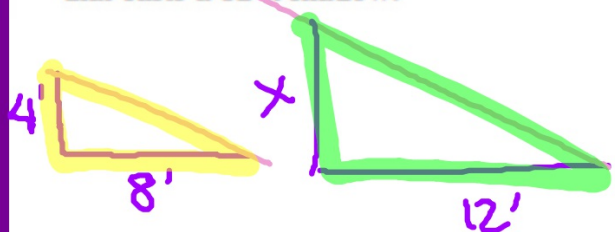
If a 12 ft tall statue casts a 16 ft long shadow then how long is the shadow that a 9 ft tall adult elephant casts?



$$\frac{12}{16} = \frac{9}{x}$$

$$12' = x$$

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.



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

$$2x = 12$$

$$\frac{2x}{2} = \frac{12}{2}$$

$$x = 6'$$

# Homework

Yellow WS 3

Due Wednesday