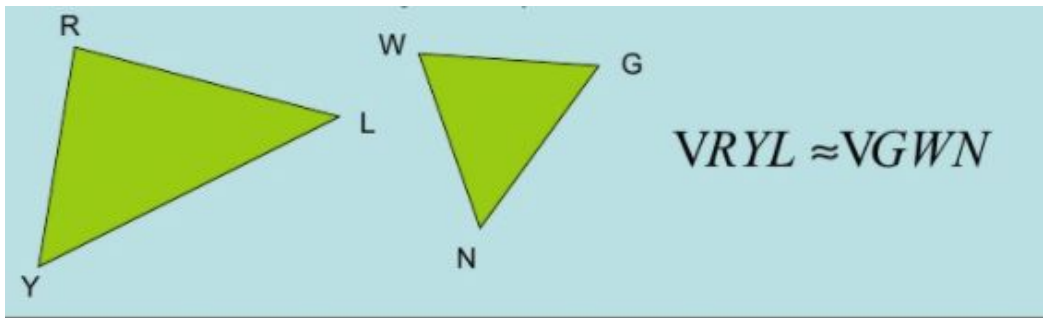


Name: _____

SIMILAR TRIANGLES



$$\frac{\text{first (bigger) triangle}}{\text{second (smaller) triangle}} = \frac{\overline{RY}}{\overline{GW}} = \frac{\overline{YL}}{\overline{WN}} = \frac{\overline{RL}}{\overline{GN}}$$

REAL WORLD EXAMPLE:

We will be comparing our shadows to that of a tree. The tree is 6 feet tall and cast a shadow of 10 feet.



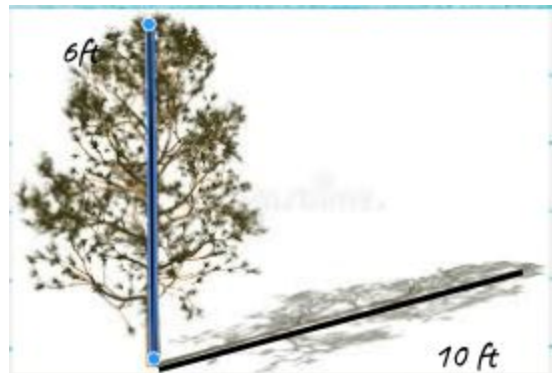
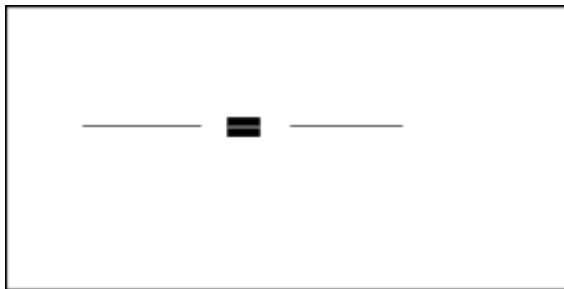
You see that the tree and shadow create a _____.

Now set up your problem:



$$\frac{\text{Tree Height}}{\text{Your Height}} = \frac{\text{Tree shadow}}{\text{Your Shadow}}$$

What will be the "x" in this problem? _____



The tree diagram shows how the tree and its shadow create a triangle. Now plug in your height to find out your shadow's height.

Once you have your ratio set up, cross multiply and then solve for x.

SOLUTION:

$$x = \underline{\hspace{2cm}}$$