# Similar Figures Worksheet

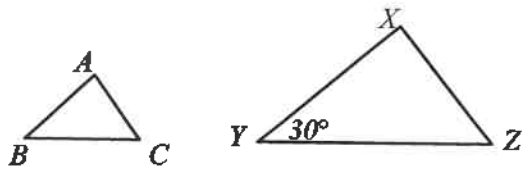
**Name:** _____ **Hour:** _____

**Fill in the blank with the appropriate word, phrase, or symbol to make a true statement.**

1. Similar figures have the same _____ but not necessarily the same _____.
2. The symbol _____ means "is similar to" and the symbol _____ is the abbreviation for the word angle.
3. A _____ drawing is an enlarged or reduced drawing that is similar to an actual object or place.
4. In similar triangles, corresponding _____ are congruent and corresponding _____ are in proportion.
5. To find a missing side length set up and solve a _____. Put the measurements of the smaller figure on top and the bigger figure on the bottom.

**Learning Goal # 1: I can identify the corresponding parts of similar figures.**

**Example: The figures in each pair are similar (ΔABC ~ ΔXYZ).**



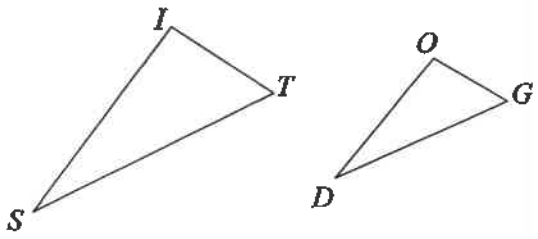

∠A corresponds with ∠____. AB matches with _____.

∠B matches with ∠____. BA corresponds with _____.

∠C corresponds with ∠____. BC matches with _____.

Practice Problems

1. **ΔSIT ~ ΔDOG**




First, label ∠D, ∠O, & ∠G on the small triangle. Then, fill in the blanks below:

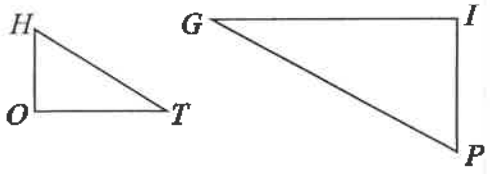
∠D corresponds with ∠____. DO matches with _____.

∠O matches with ∠____. IT corresponds with _____.

∠G corresponds with ∠____. ST matches with _____.

Suppose ∠S = 25°, what is the measure of ∠D? _____.

2. **ΔHOT ~ ΔPIG**



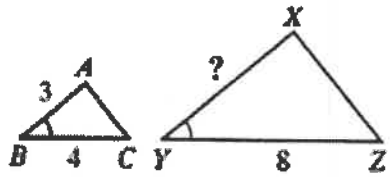

∠H corresponds with ∠____. PI matches with _____.

∠O matches with ∠____. IG corresponds with _____.

∠T corresponds with ∠____. GP matches with _____.

**Learning Goal # 2: I can find the missing measurements of two similar figures.**

**Example 1:** The figures in each pair are similar ($\Delta ABC \sim \Delta XYZ$).

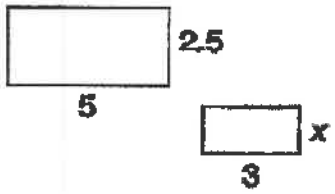



$$\frac{\text{small } \Delta}{\text{big } \Delta}$$

$$\frac{3}{5} = \frac{x}{2.5}$$

The missing side is _____ .

**Example 2:** The figures in each pair are similar



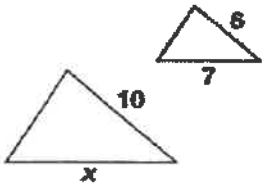

$$\frac{\text{small } \square}{\text{big } \square}$$

_____ $X =$ _____

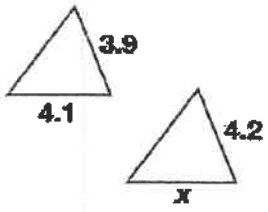
Practice Problems

Find the missing side(s) in each similar figure. ***Show Work!***

1.



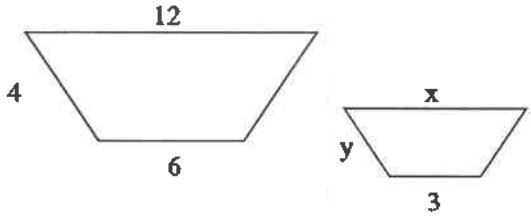

2.




1. _____

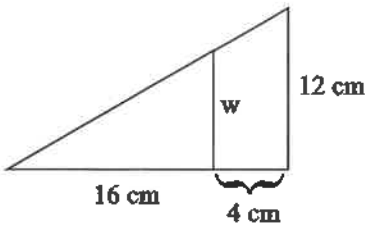
2. _____

3.



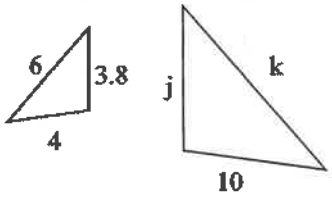

x = _____ y = _____

4.



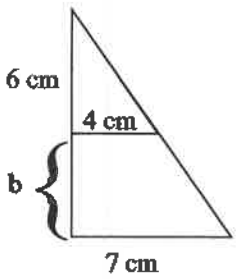

w = _____

5.




5. j = _____ k = _____

6.




b = _____