

At the end of class, I will be able to...

- ☆ determine if two triangles are similar
- ☆ find the missing measures of similar triangles
- ☆ solve real-world applications using proportions

11 - 6

Similar Triangles

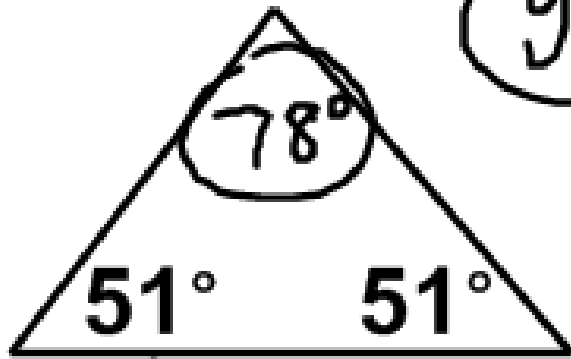
similar triangles: same shape, but
not necessarily the same size

*** corresponding angles are
congruent

*** corresponding sides are
proportional

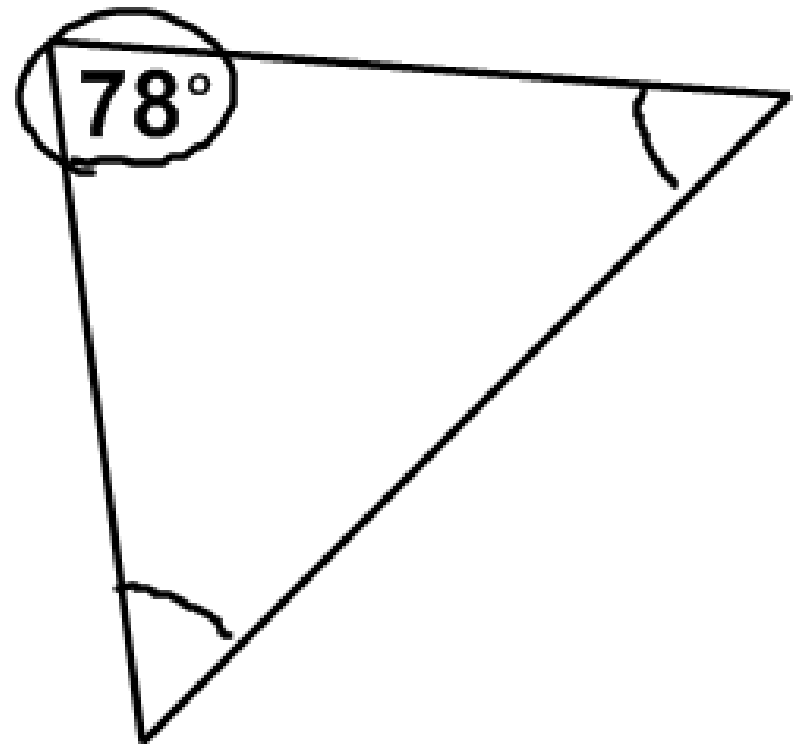
Ex: Are the two triangles similar?

yes

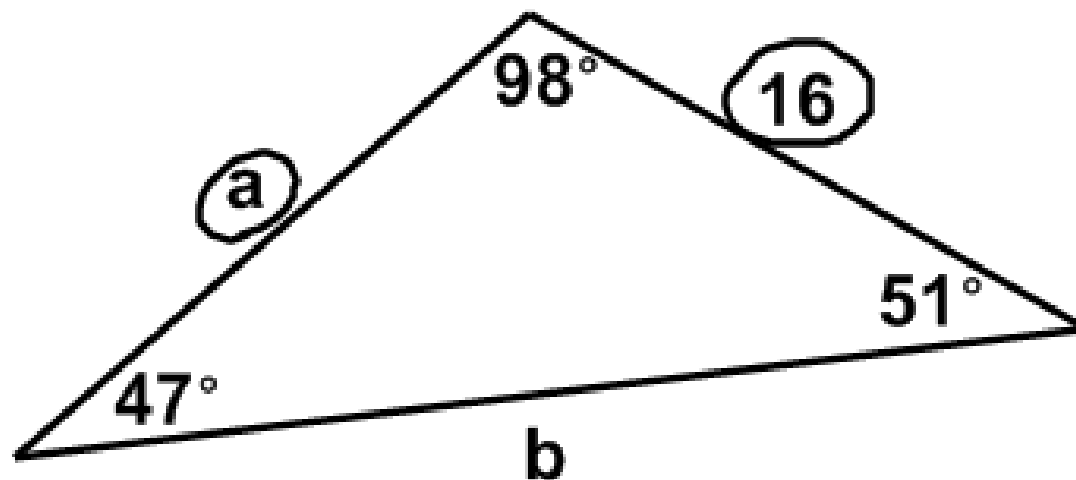
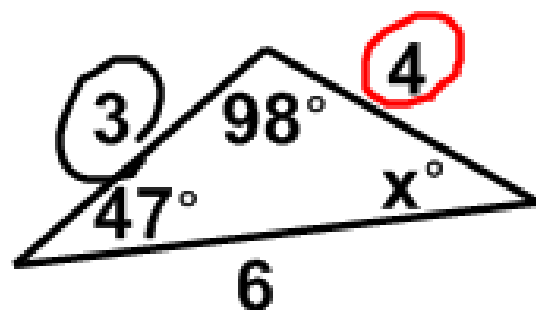


102

$$\begin{array}{r} 180 \\ - 102 \\ \hline 78 \end{array}$$



Ex: Find the missing measures of these similar triangles.

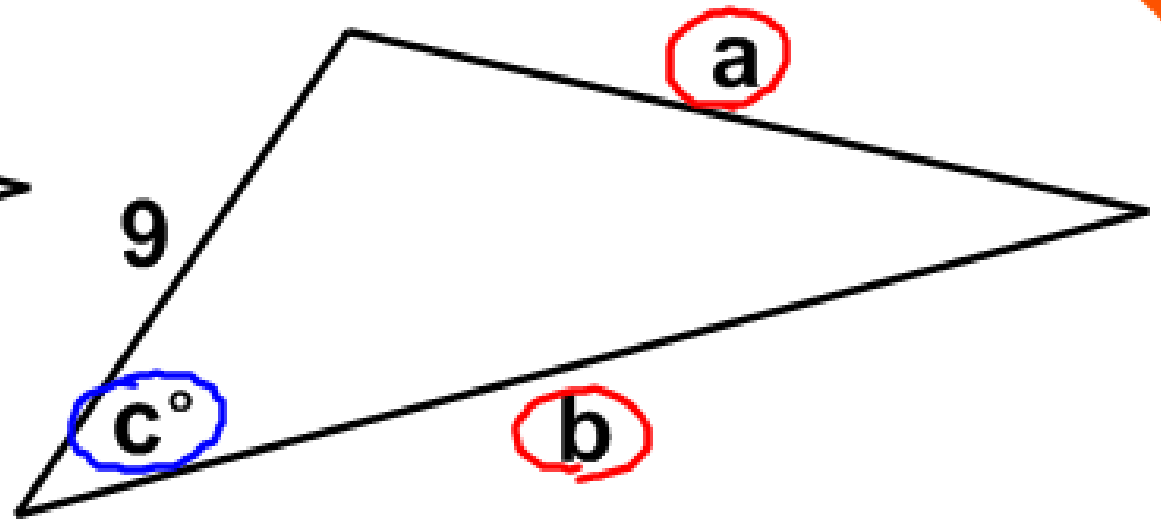
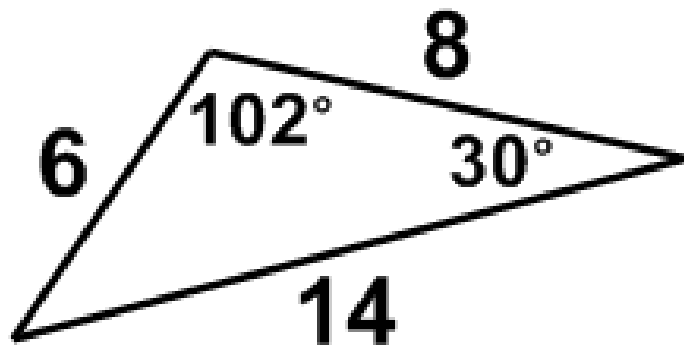


$$\frac{4}{16} = \frac{3}{a}$$

$$\cancel{4}a = \frac{48}{\cancel{4}}$$
$$a = 12$$

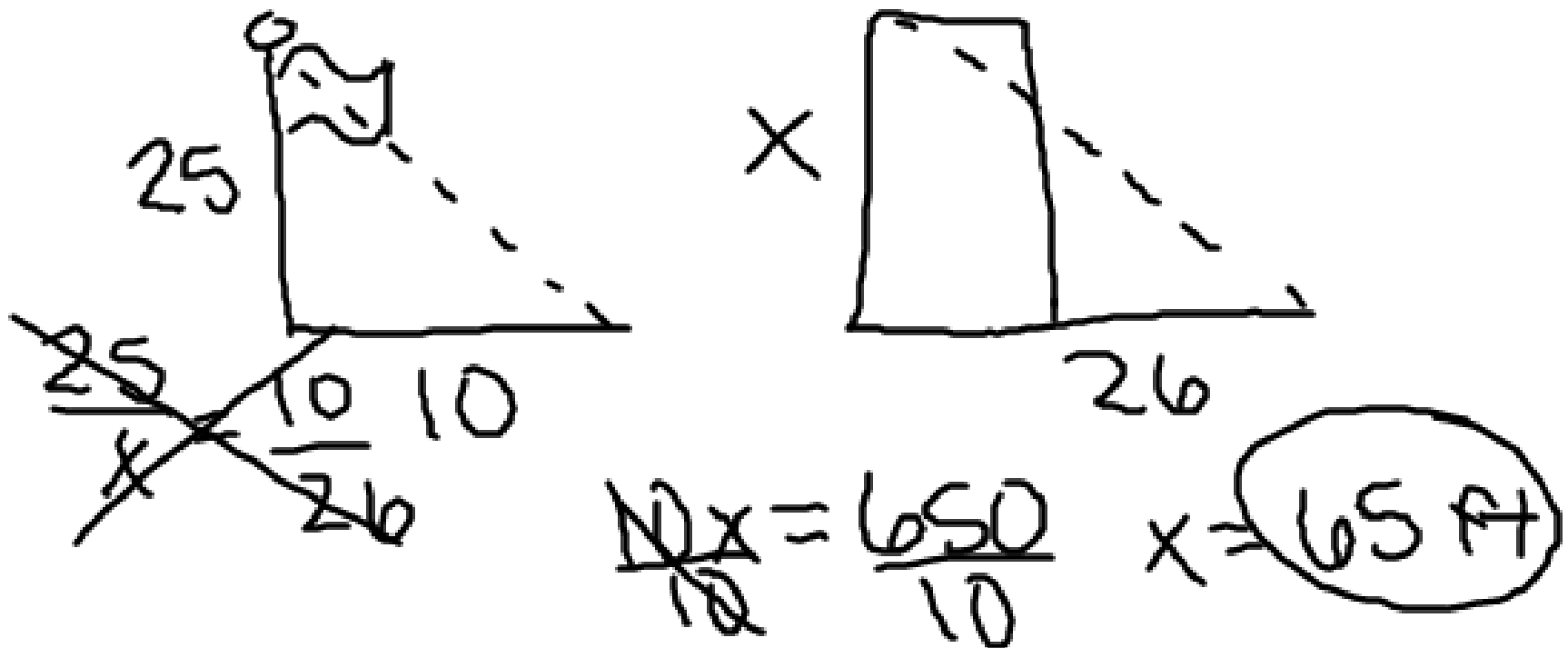
$$a = \underline{12}$$
$$b = \underline{24}$$
$$x = \underline{51^\circ}$$

Dry - Erase Board



$a =$ _____
 $b =$ _____
 $c =$ _____

Ex: A 25-ft flagpole casts a shadow that is 10 ft long, and the nearby school building casts a shadow that is 26 ft long. How high is the building?



Dry - Erase Board

Marcus is 6 ft tall and casts a shadow 4 ft long. If a swingset casts a shadow 10 ft long, how tall is the swingset?



Coming up this week:

Similar Triangles Project

Quiz Review

Quiz!

I can...

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- ☆ find the missing measures of similar triangles
- ☆ solve real-world applications using proportions



Homework:

p. 618 #4 - 20 even