

# WARMUP

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## SECTION 7.4: A POSTULATE FOR SIMILAR TRIANGLES

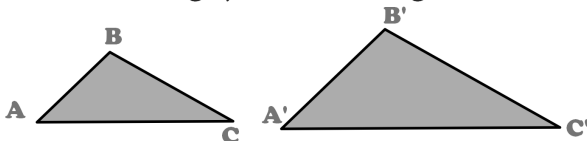
Standards:

4.0: Students prove basic theorems involving congruence and similarity.

13.0: Students prove relationships between angles in polygons by using properties of complementary, supplementary, vertical, and exterior angles.

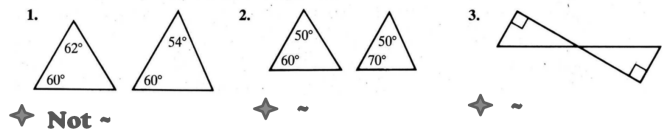
### AA SIMILARITY POSTULATE

**If two angles of one triangle are congruent to two angles of another triangle, then the triangles are similar.**

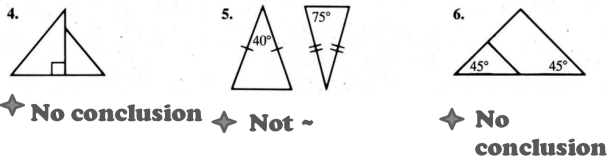


**If  $m\angle A = m\angle A'$  and  $m\angle C = m\angle C'$  then the triangles are similar.**

Tell whether the triangles are similar or not similar. If you can't reach a conclusion, write *no conclusion is possible*.



Tell whether the triangles are similar or not similar. If you can't reach a conclusion, write *no conclusion is possible*.



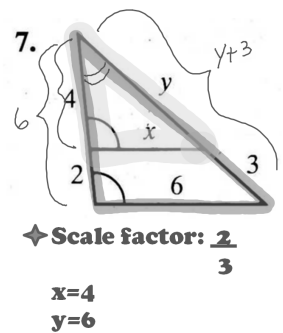
Find the values of  $x$  and  $y$ .

$$SF = \frac{4}{6} = \frac{2}{3}$$

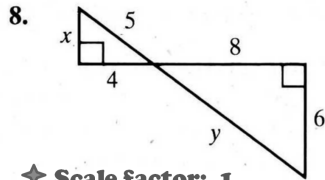
$$\frac{2}{3} = \frac{x}{6} \quad \frac{2}{3} = \frac{y}{y+3}$$

$$3x = 12 \quad 3y = 2y + 6$$

$$x = 4 \quad y = 6$$



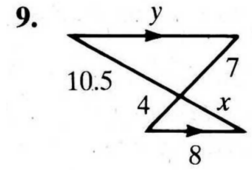
Find the values of  $x$  and  $y$ .



◆ Scale factor:  $\frac{1}{2}$

$x=3$   
 $y=10$

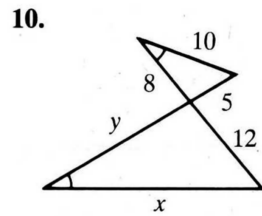
Find the values of  $x$  and  $y$ .



◆ Scale factor:  $\frac{7}{4}$

$x=6$   
 $y=14$

Find the values of  $x$  and  $y$ .

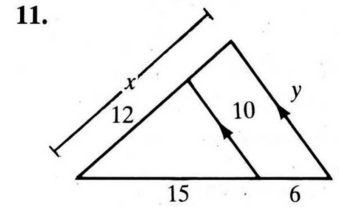


◆ Scale factor:  $\frac{5}{12}$

$x=24$

$y=19.2$

Find the values of  $x$  and  $y$ .

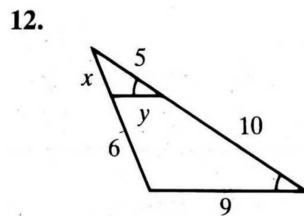


◆ Scale factor:  $\frac{5}{7}$

$y=14$

$x=16.8$

Find the values of  $x$  and  $y$ .



◆ Scale factor:  $\frac{1}{3}$

$x=3$   
 $y=3$