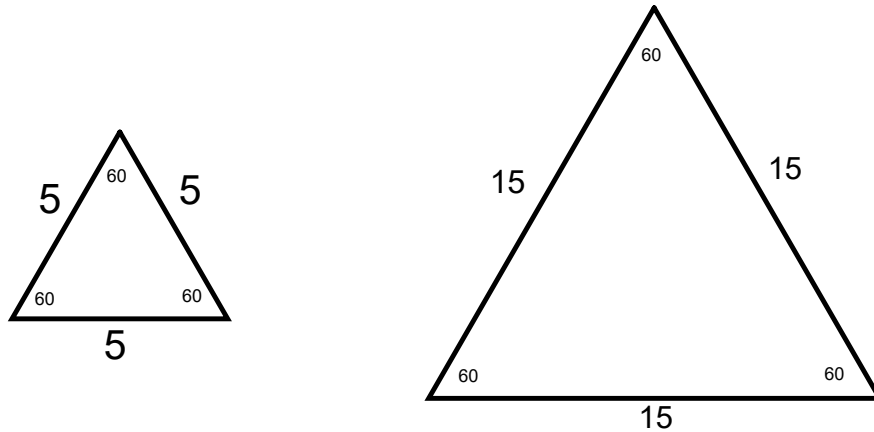
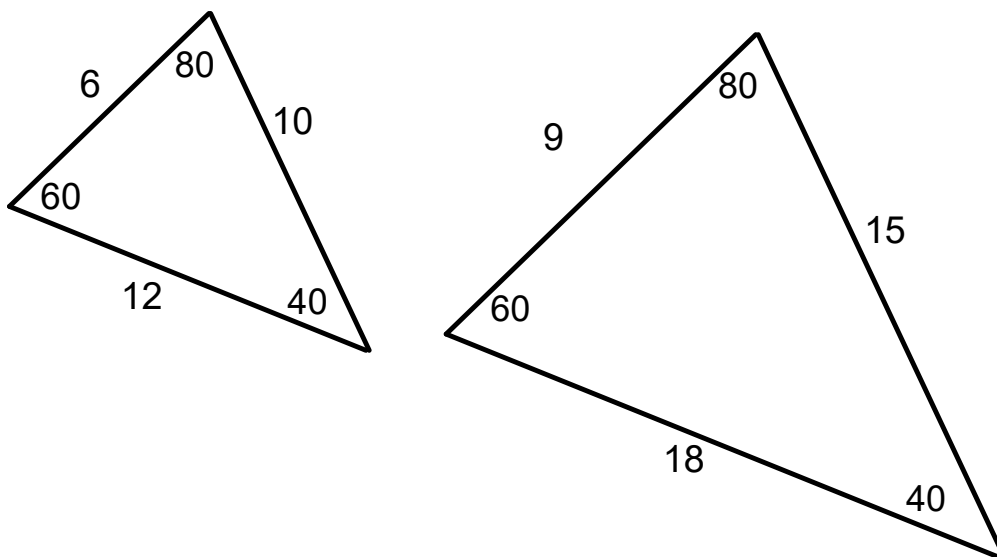


Similar Triangles

Similar Triangles have identical angles and their sides all have identical scale factors.



$$\text{Scale Factor} = 15/5 = 3$$

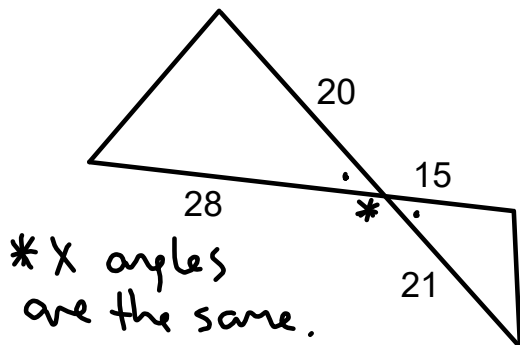


$$\text{Scale Factor} = 9/6 = 1.5$$

$$15/10 = 1.5$$

$$18/12 = 1.5$$

Are these Triangles Similar. How do you know?

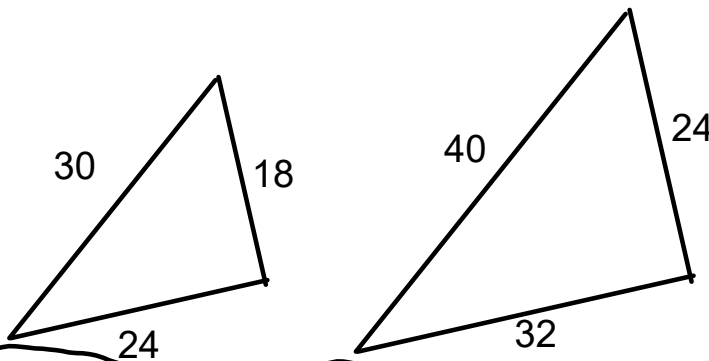


Are the scale factors the same?

$$\frac{28}{21} = 1.\bar{3} \quad \text{yes, the same}$$

$$\frac{20}{15} = 1.\bar{3}$$

yes similar because Side Angle Side SAS



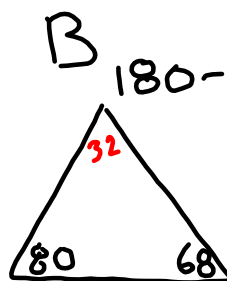
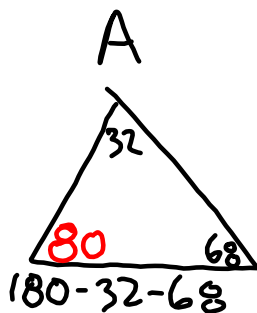
yes they are similar because Side Side Side SSS

$$\frac{40}{30} = 1.\bar{3}$$

$$\frac{24}{18} = 1.\bar{3}$$

$$\frac{32}{24} = 1.\bar{3}$$

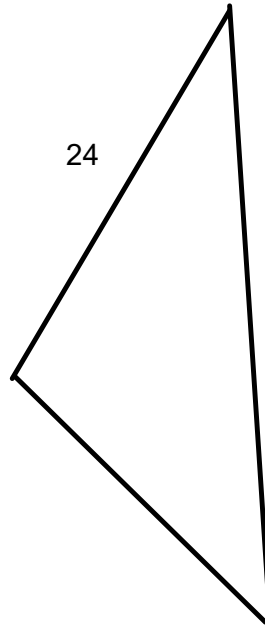
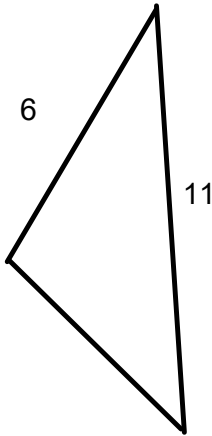
Triangle A has angles of 32 degrees and 68 degrees. Triangle B has angles of 68 degrees and 80 degrees. Are they similar?



They are similar because Angle Angle Angle AAA

The angles in a triangle always add to 180° .

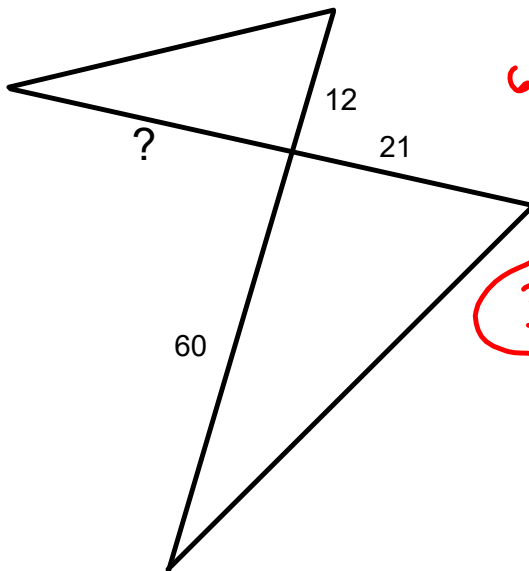
The 2 triangles are similar. Determine the missing side.



If they are similar, they have the same scale factor.

$$\frac{24}{6} = \frac{?}{11}$$

$$? = 44$$



$$\frac{12}{21} = \frac{?}{60}$$

$$34.29 = ?$$