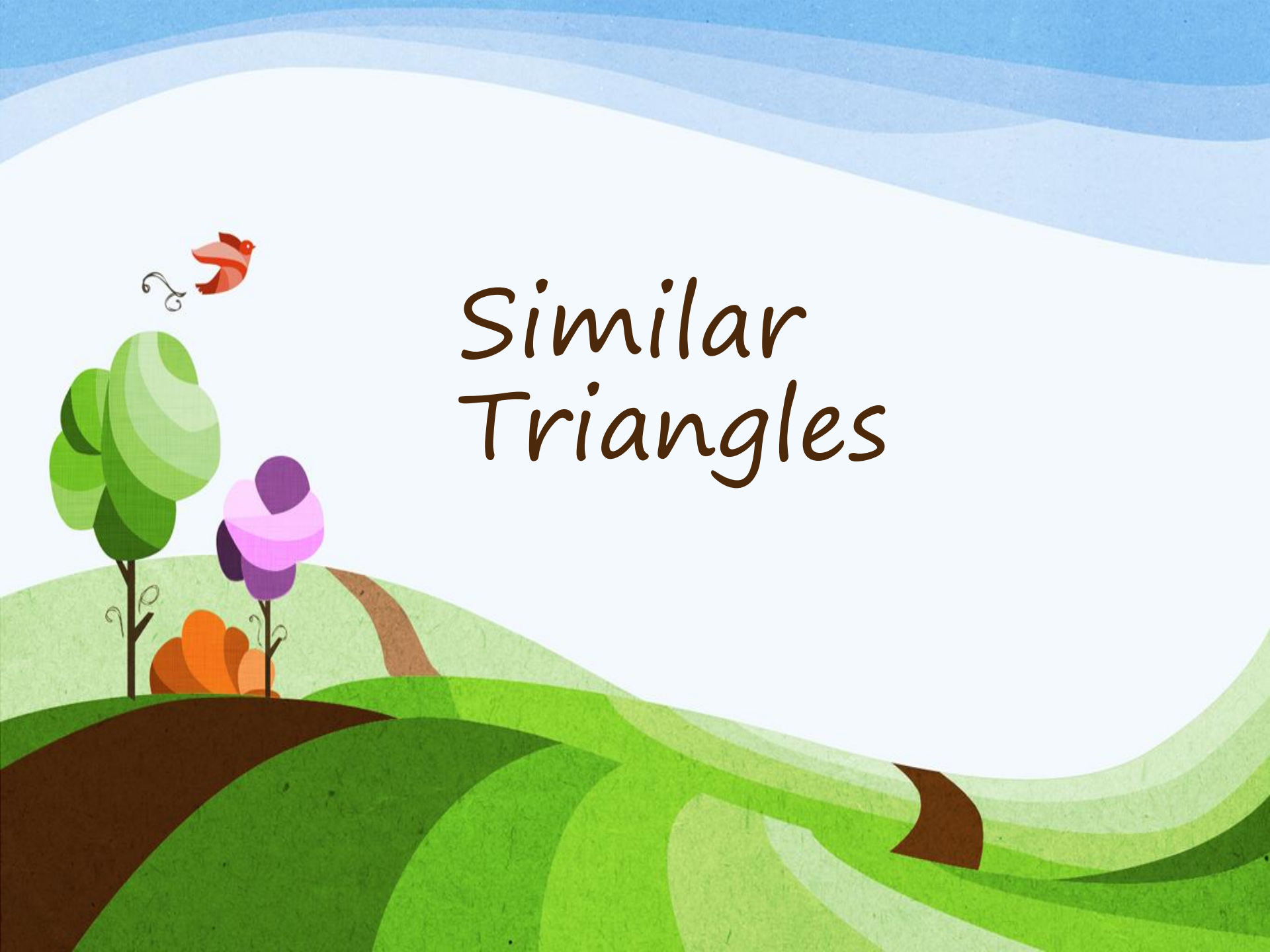
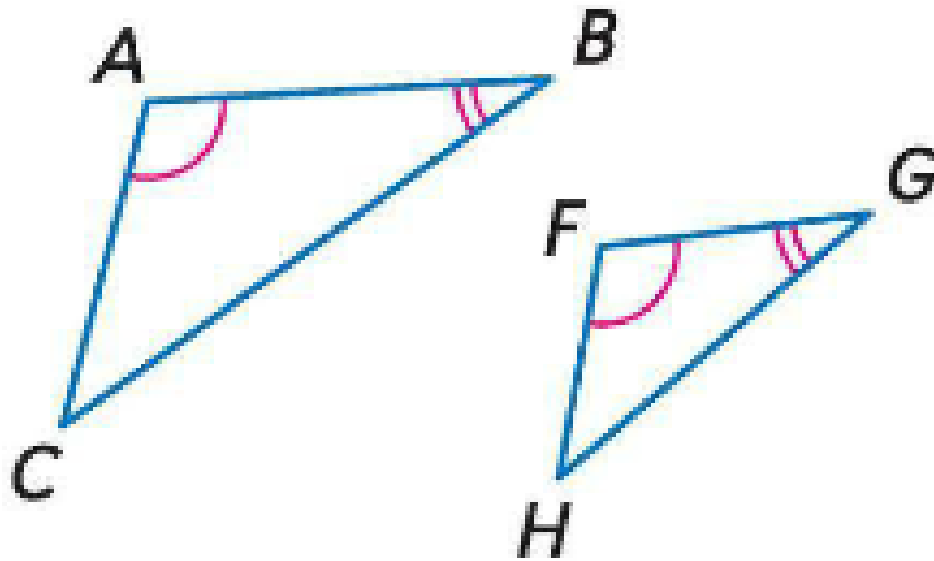


# Similar Triangles



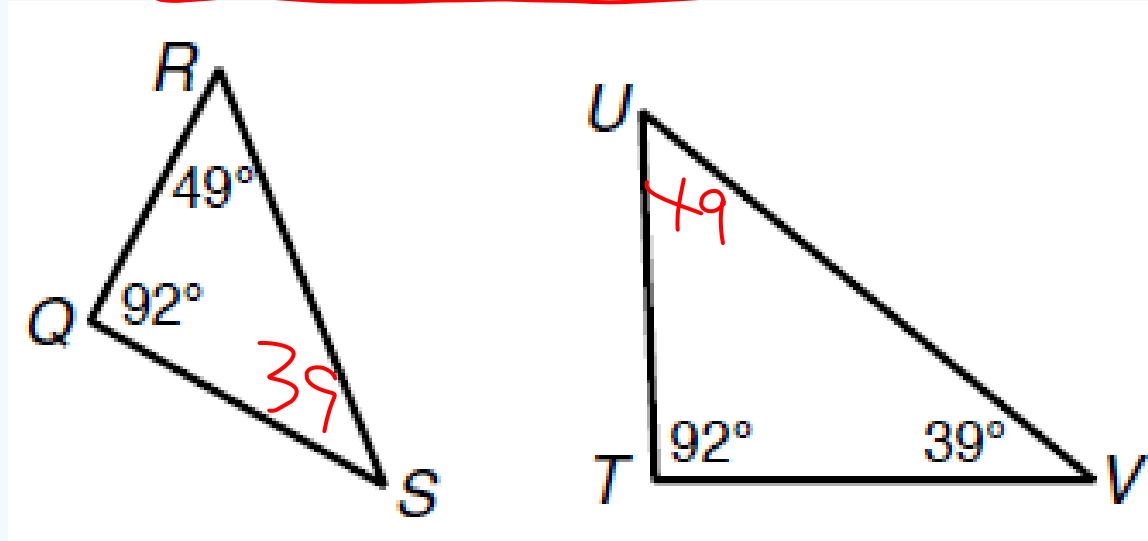
# Angle-Angle (AA) Similarity

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



# Examples

- Determine whether each pair of triangles is similar. Justify your answer.

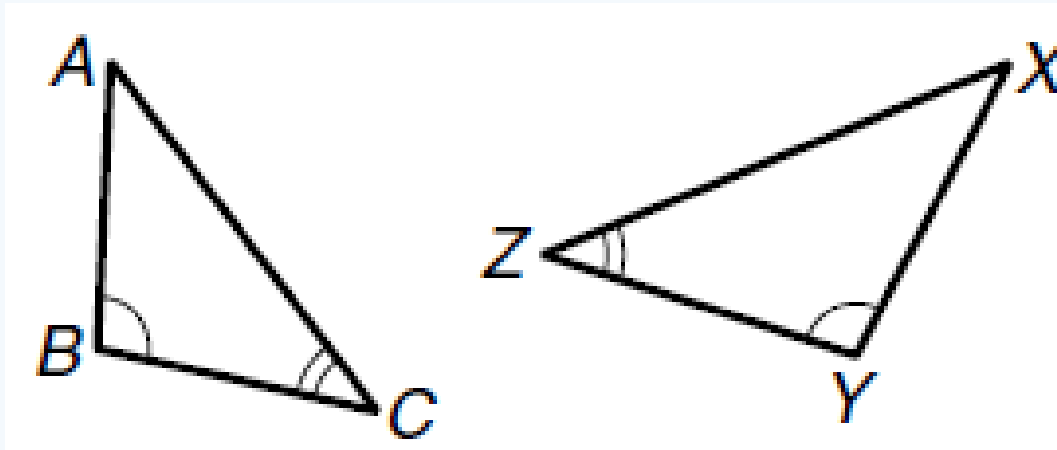


YES

AA

# Examples

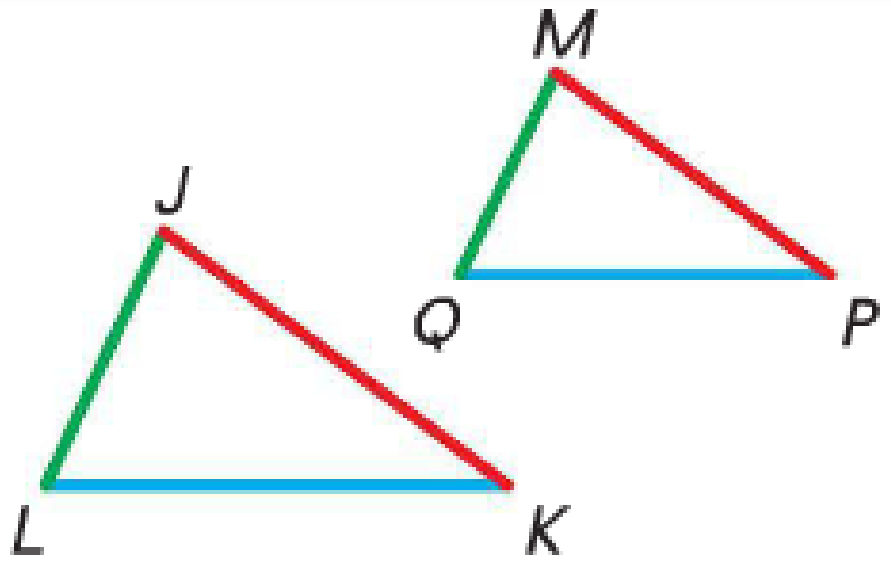
- Determine whether each pair of triangles is similar. Justify your answer.



YES  
AA

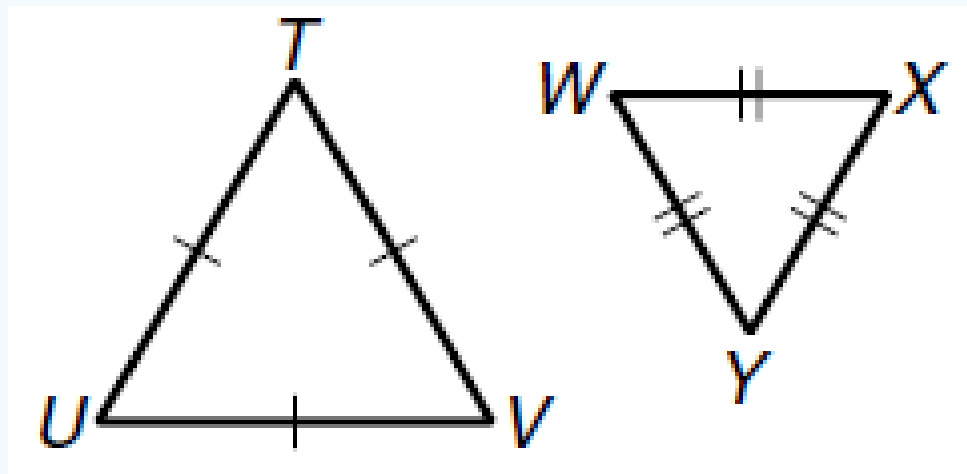
# Side-Side-Side (SSS) Similarity

- If the corresponding side lengths of two triangles are proportional, then the triangles are similar.



# Examples

- Determine whether each pair of triangles is similar. Justify your answer.



YES  
SSS

# Examples

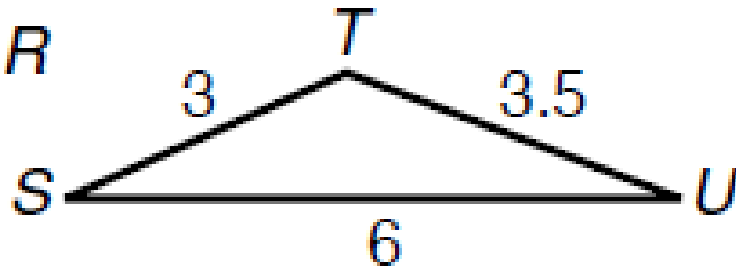
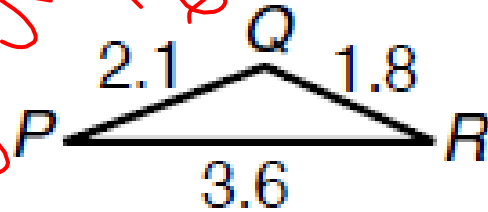
$$\rightarrow 10.8 = 10.8$$

- Determine whether each pair of triangles is similar. Justify your answer.

$$\frac{1.8}{3} \times \frac{2.1}{3.5} \times \frac{3.6}{6} \rightarrow \frac{12.6}{6} = 2.1$$

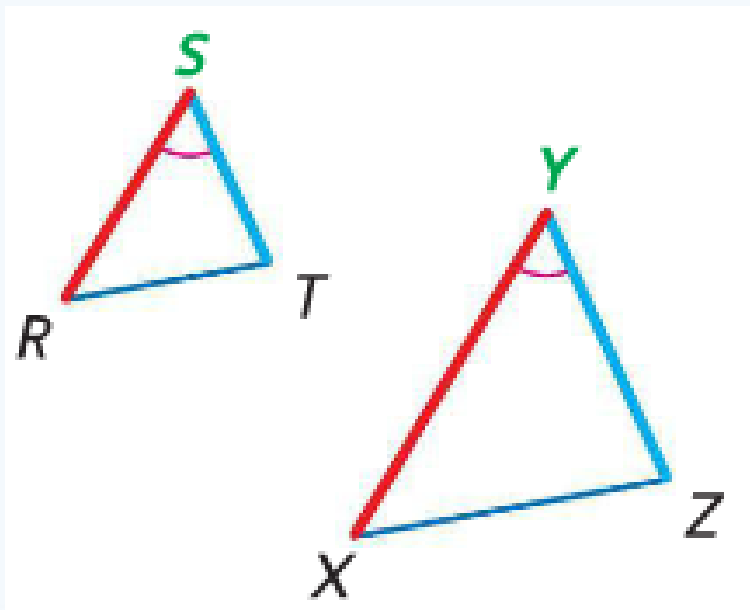
YES  
SSS

$$\frac{6.3}{6.3} = 1$$



# Side-Angle-Side (SAS) Similarity

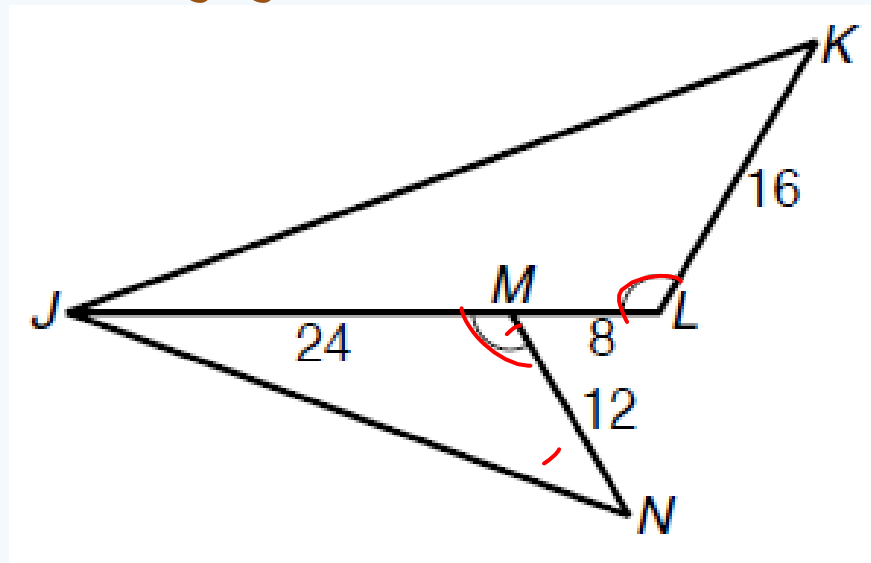
- If the lengths of two sides of one triangle are proportional to the lengths of two corresponding sides of another triangle and the included angles are congruent, then the triangles are similar.



# Examples

- Determine whether each pair of triangles is similar. Justify your answer.

$$\frac{12}{24} = \frac{16}{32}$$
$$\frac{1}{2} = \frac{1}{2}$$

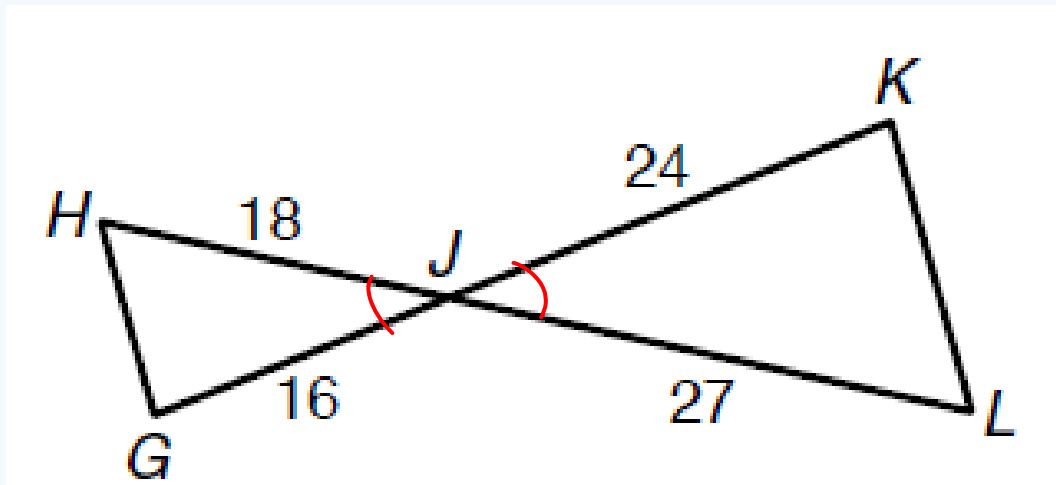


YES  
SAS

# Examples

- Determine whether each pair of triangles is similar. Justify your answer.

$$\frac{18}{27} = \frac{16}{24}$$
$$\frac{2}{3} = \frac{2}{3}$$



YES  
SAS