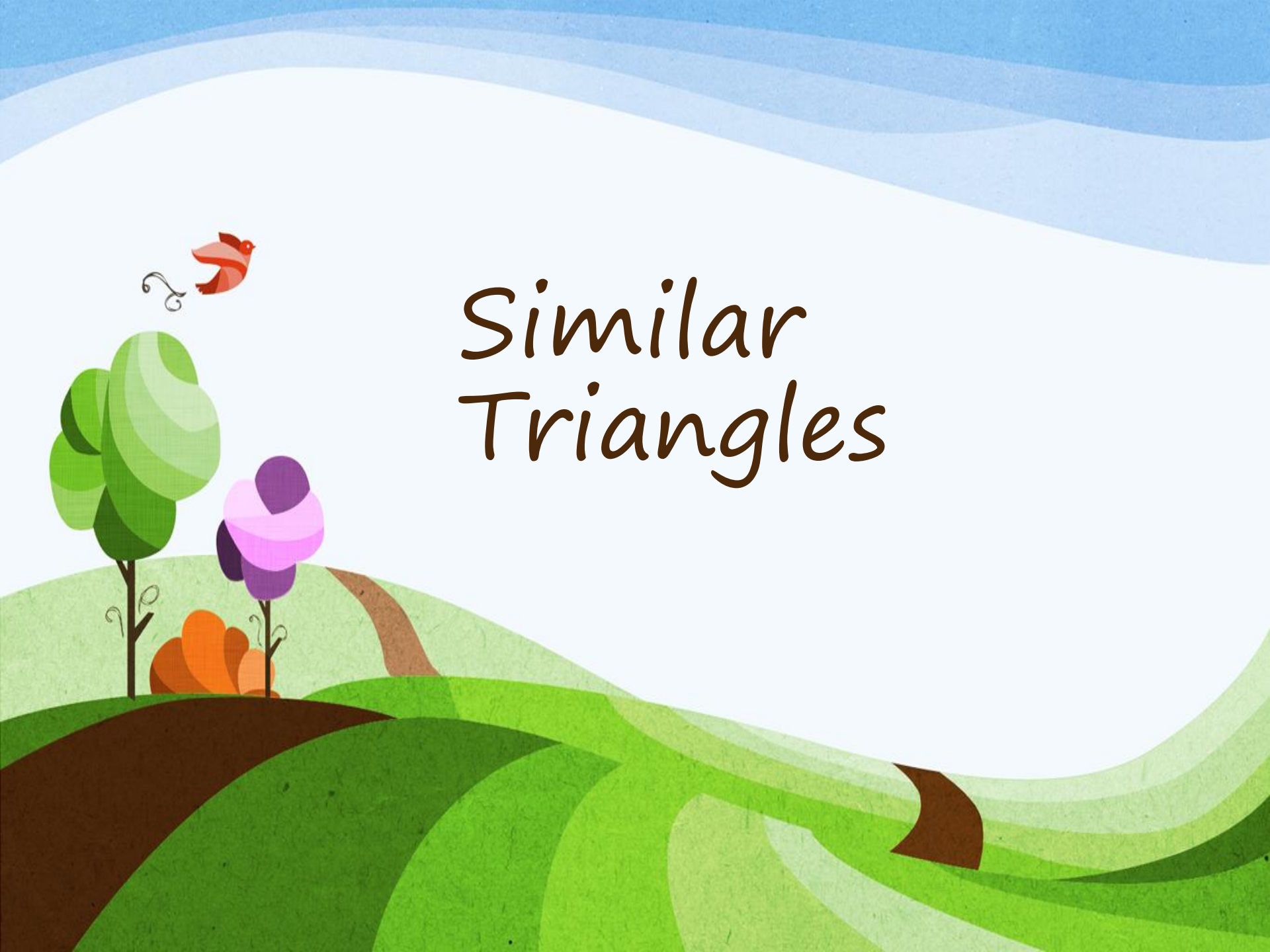
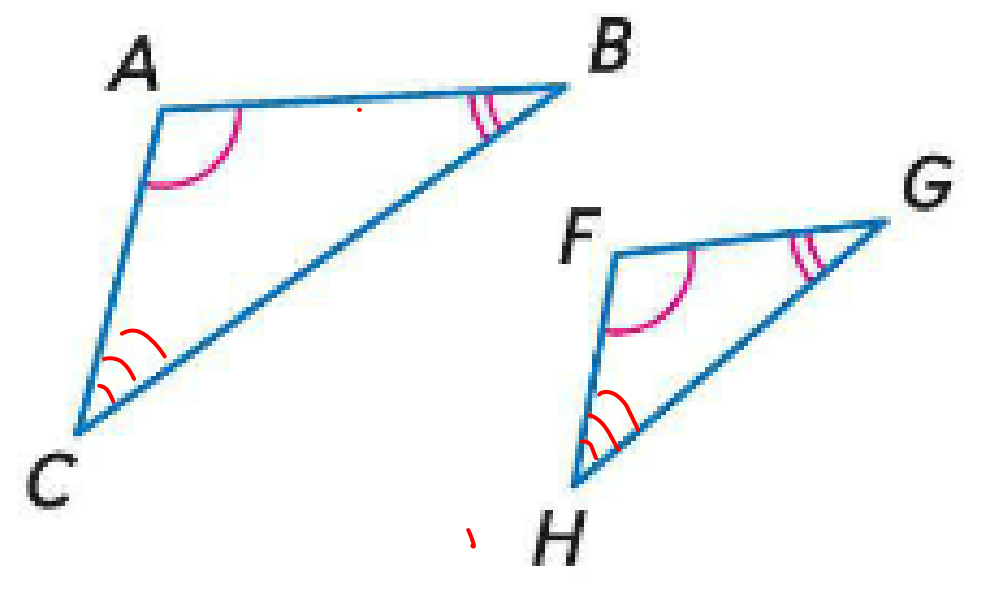

Similar
Triangles

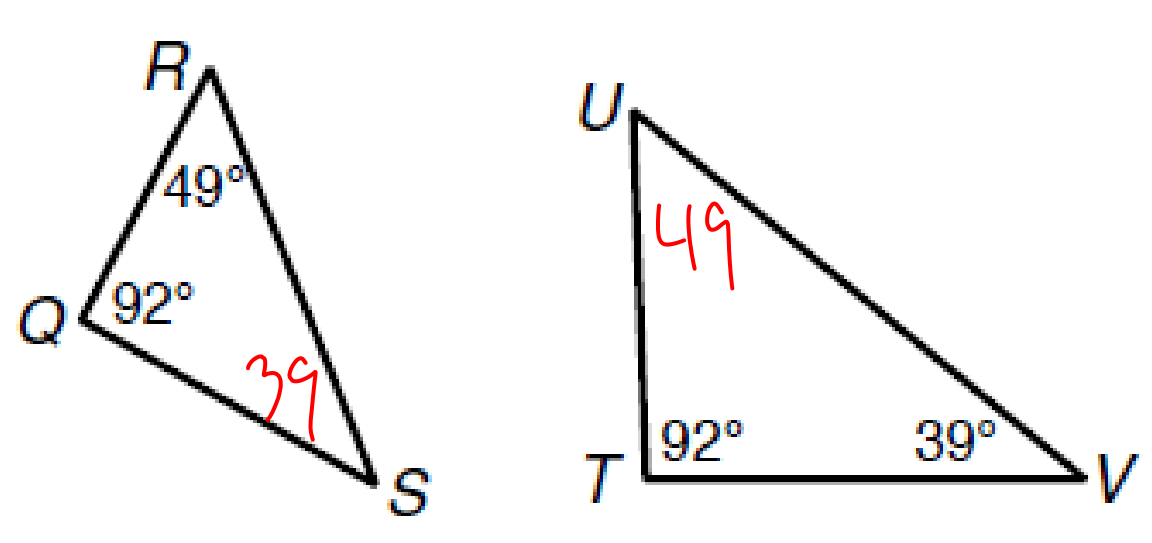
Angle-Angle (AA) Similariry

- 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.

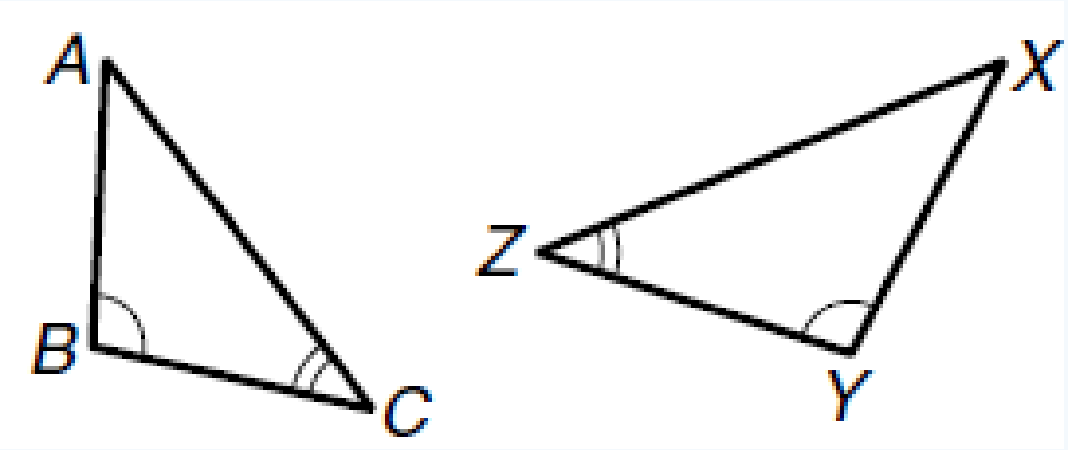


YES

AA

Examples

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

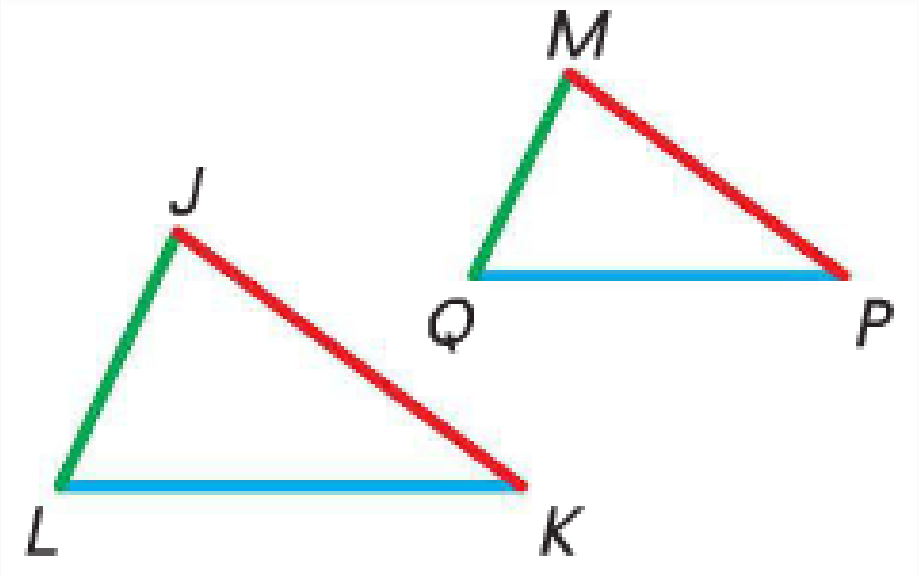


YES

AA

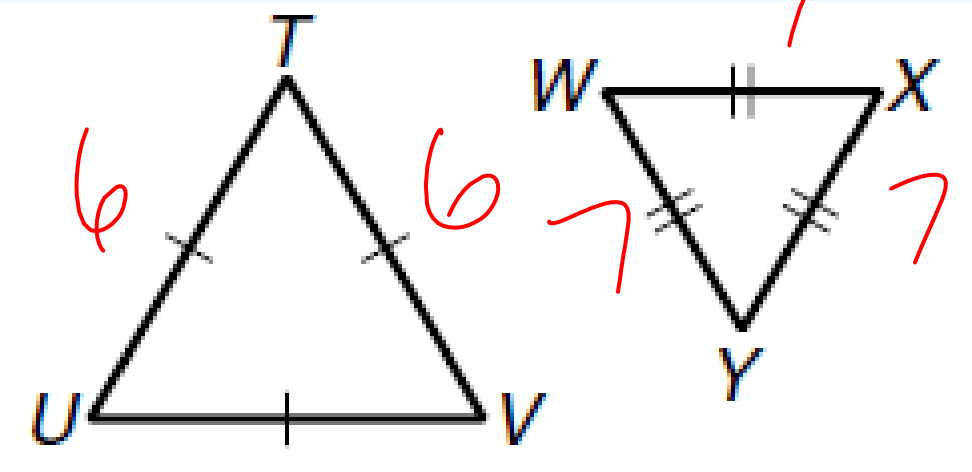
Side-Side-Side (SSS) Similarity

- 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.



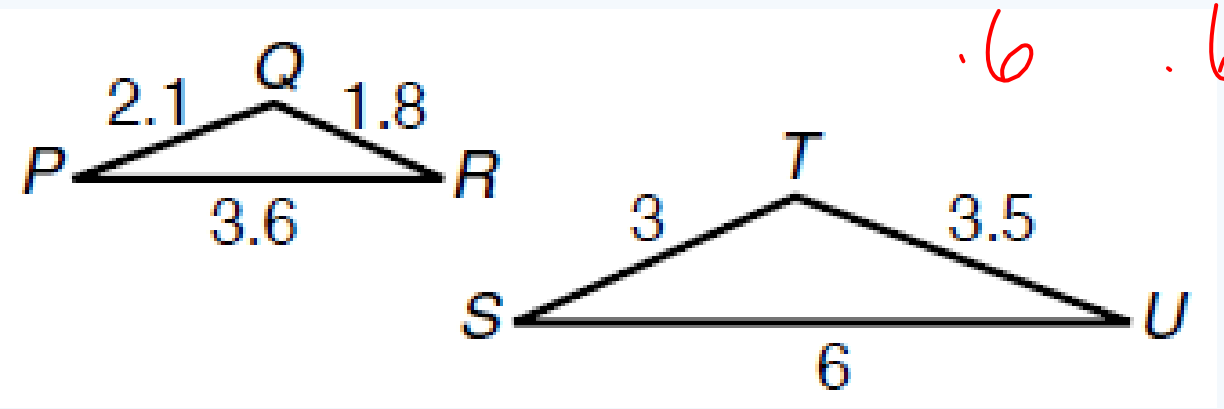
$\frac{6}{7} = \frac{6}{7}$

Examples

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

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

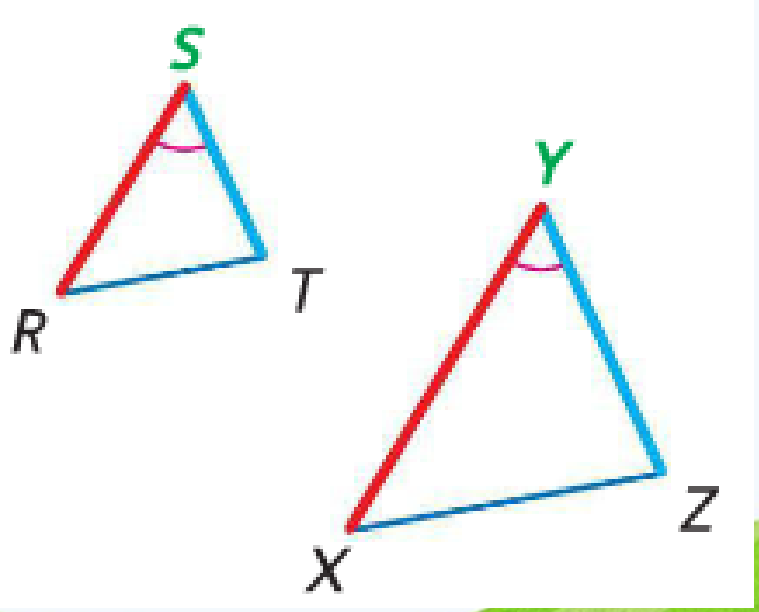
.6 .6 .6



YES
SSS

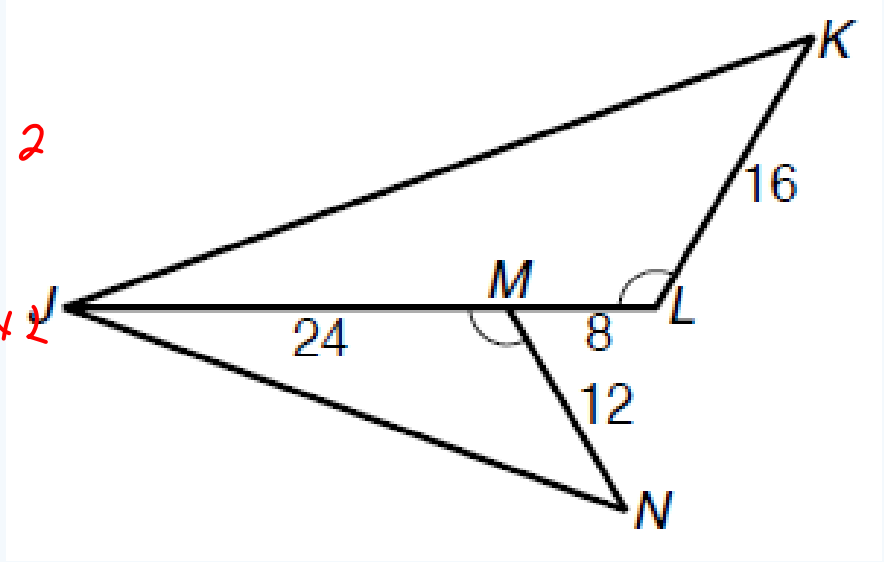
Side-Angle-Side (SAS) Similarity

- 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.



$\frac{32}{24} \stackrel{?}{=} \frac{16}{12}$ ← 16×2, 12×2

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

YES

SAS

Examples

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

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

$1.5 = 1.5$

Vertical