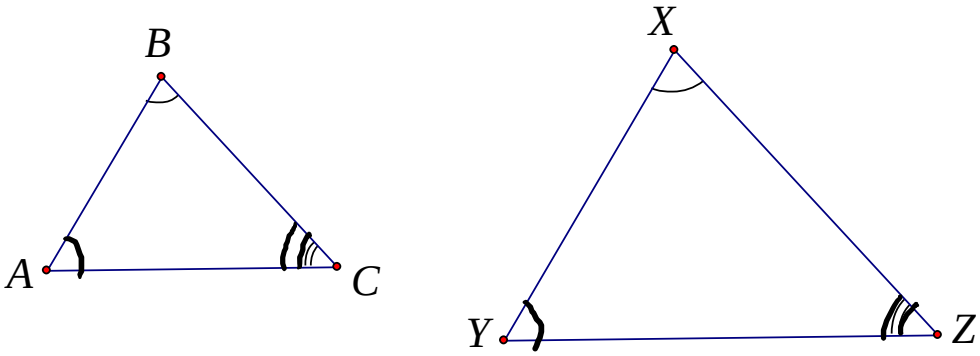
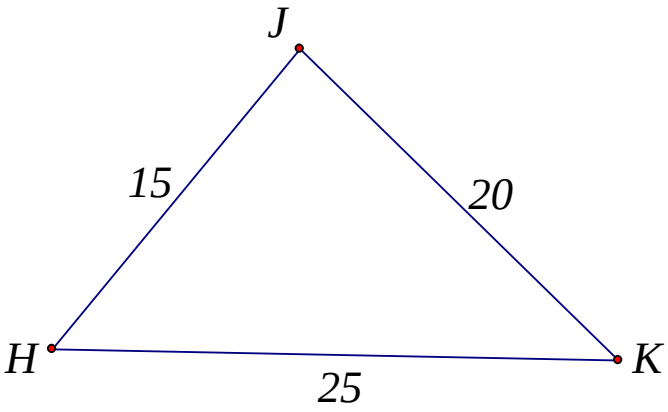
Similar Triangles

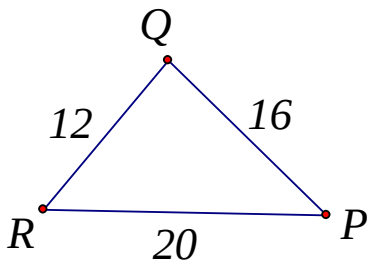
Post. AA Similarity



$\triangle ABC \sim \triangle YXZ$

Thm. SSS Similarity



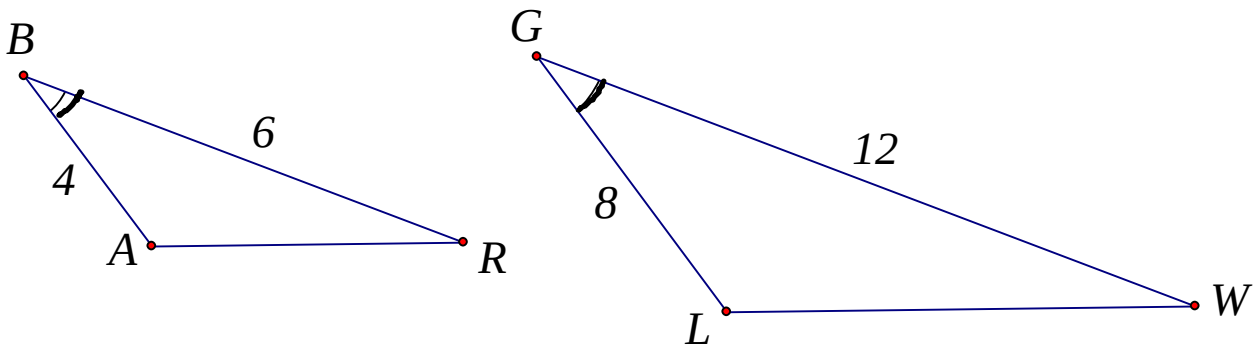


$\triangle HJK \sim \triangle RQP$

$\frac{25}{20} \quad \frac{20}{16} \quad \frac{15}{12}$

$\frac{5}{4}$

Thm. SAS Similarity

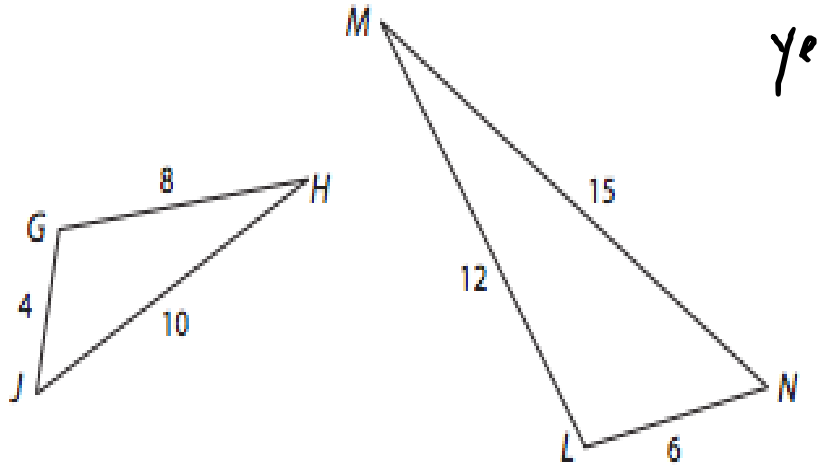


$\triangle ABR \sim \triangle LGW$

$\frac{4}{8} \quad \frac{6}{12}$

$\frac{1}{2}$

Ex. Are the triangles similar? If so, give a reason and write the similarity statement.



yes, by SSS ~

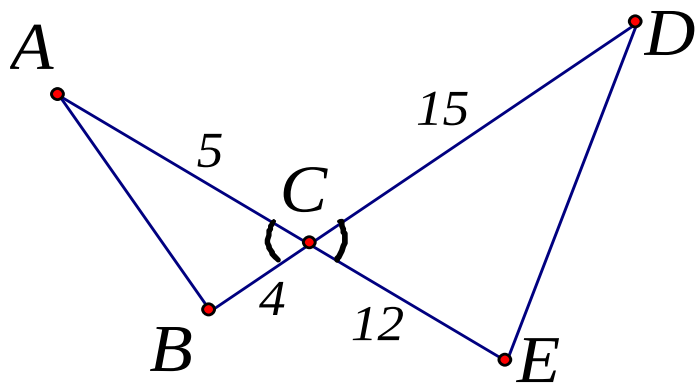
$\triangle JGH \sim \triangle NLM$

$\frac{4}{6} \quad \frac{8}{12} \quad \frac{10}{15}$

$\frac{2}{3} \quad \frac{2}{3} \quad \frac{2}{3}$

Ex. Are the triangles similar? If so, give a reason and write the similarity statement.

yes, by SAS~



$\frac{4}{12}$ $\frac{5}{15}$

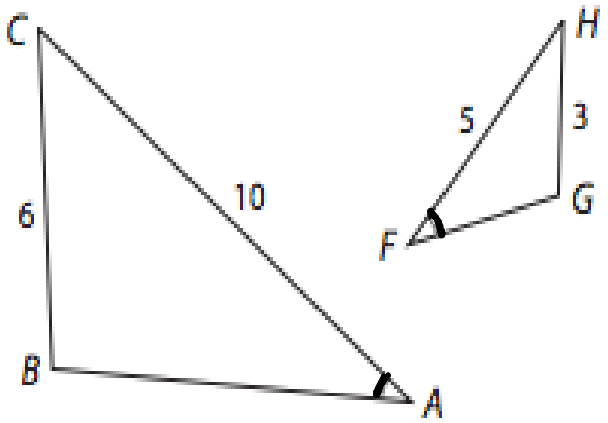
$\frac{1}{3}$

$\triangle ABC \sim \triangle DEC$

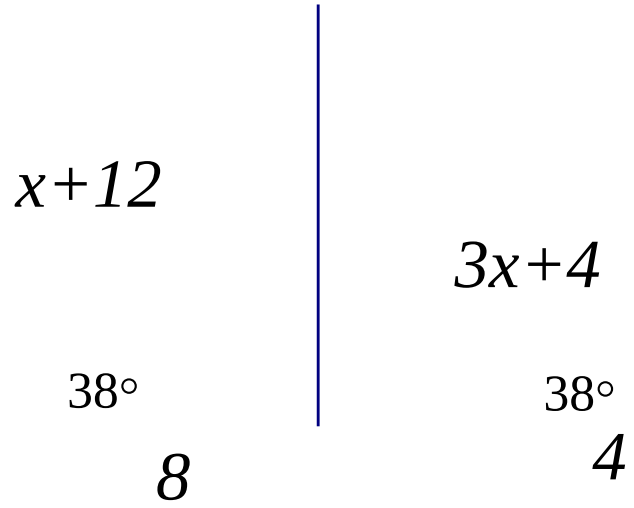
Ex. Are the triangles similar? If so, give a reason and write the similarity statement.

~~SAS ~~

not similar



Ex. Find x.



Similar by AA~

$\frac{x+12}{3x+4} = \frac{8}{4}$

$4(x+12) = 8(3x+4)$

$4x+48 = 24x+32$

$-4x \quad -4x$

$48 = 20x + 32$

$-32 \quad -32$

$\frac{16}{20} = \frac{20x}{20} \rightarrow x = \frac{16}{20} = \frac{4}{5}$