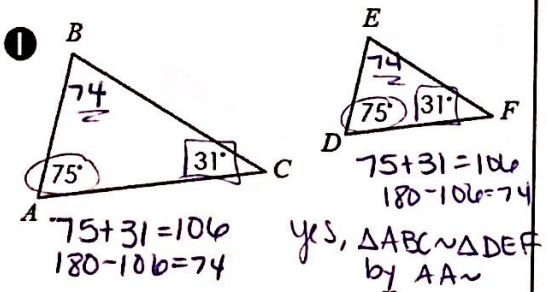
Triangle Similarity

AA~
Angle-Angle Similarity

If two corresponding angles are congruent, then the triangles are similar

Determine if the examples below are similar by AA~. If yes, write a similarity statement.

❶

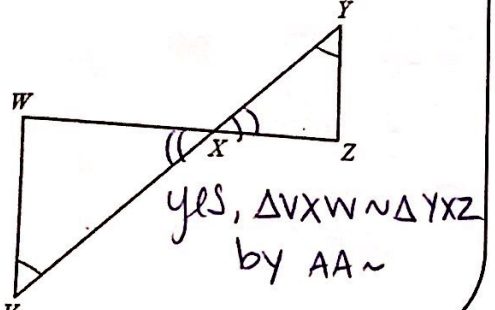


75+31=106
180-106=74

75+31=106
180-106=74

yes, $\triangle ABC \sim \triangle DEF$ by AA~

❷



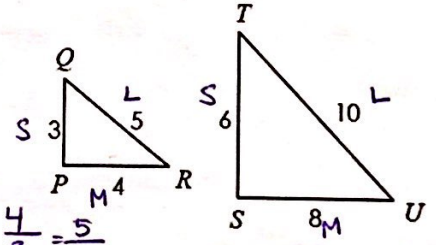
yes, $\triangle VXW \sim \triangle YXZ$ by AA~

SSS~
Side-Side-Side Similarity

If all corresponding sides are proportional, then the triangles are similar

Determine if the examples below are similar by SSS~. If yes, write a similarity statement.

❸

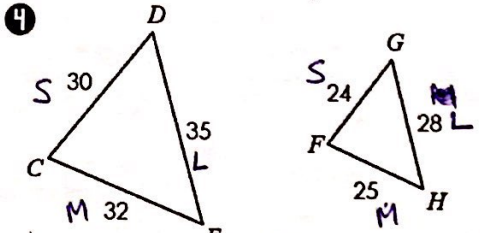


$\frac{3}{6} = \frac{4}{8} = \frac{5}{10}$

$\frac{1}{2} = \frac{1}{2} = \frac{1}{2}$ ✓

yes, $\triangle QPR \sim \triangle TSU$ by SSS~

❹



$\frac{30}{24} = \frac{32}{25} = \frac{35}{28}$

not similar!

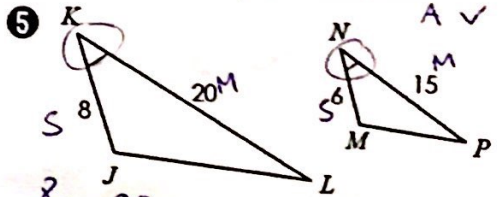
$\frac{5}{4} = \frac{32}{25} = \frac{5}{4}$ X

SAS~
Side-Angle-Side Similarity

If two corresponding sides are proportional and the included angles are congruent, then the triangles are similar

Determine if the examples below are similar by SAS~. If yes, write a similarity statement.

❺

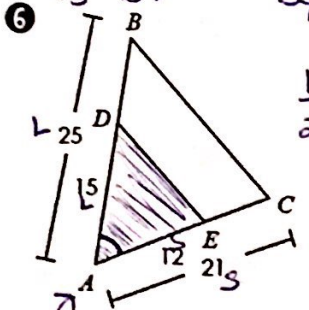


$\frac{8}{6} = \frac{20}{15}$

$4/3 = 4/3$ ✓

yes, $\triangle JKL \sim \triangle MNP$ by SAS~

❻



$\frac{12}{21} = \frac{15}{25}$

$\frac{4}{7} = \frac{3}{5}$ X

not similar!

shared angle!

Scanned with CamScanner