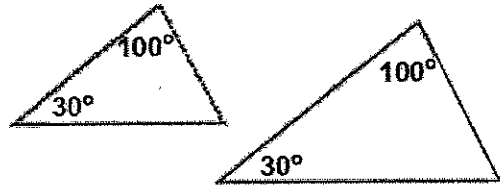


Triangle Similarity

Name: _____

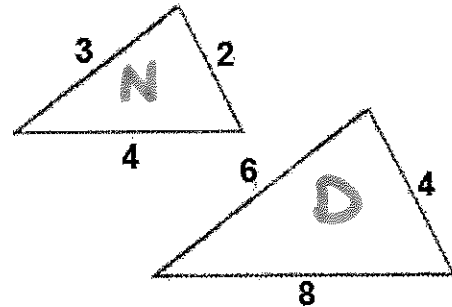
Angle-Angle (AA) Similarity Postulate:

If 2 angles of 1 triangle are congruent to 2 angles of another triangle, then the 2 triangles are similar.



Side-Side-Side (SSS) Similarity Theorem:

If the lengths of the corresponding sides of 2 triangles are proportional, then the triangles are similar.



Shortest side:

$$\frac{2}{4} \quad \frac{3}{6} \quad \frac{4}{8}$$

Middle side:

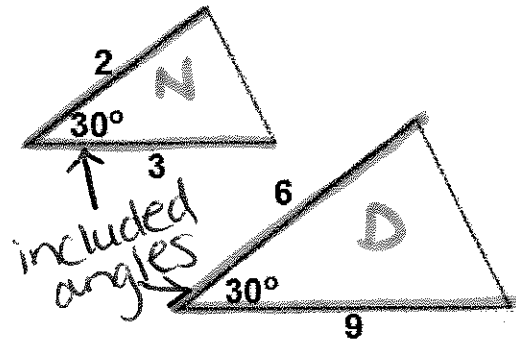
$$\frac{4}{8} \quad \frac{6}{12} \quad \frac{2}{4}$$

Longest side:

$$\frac{2}{4} \quad \frac{3}{6} \quad \frac{4}{8}$$

Side-Angle-Side (SAS) Similarity Theorem:

If an angle of 1 triangle is congruent to an angle of a 2nd triangle and the lengths of the sides including these angles are proportional, then the triangles are similar.



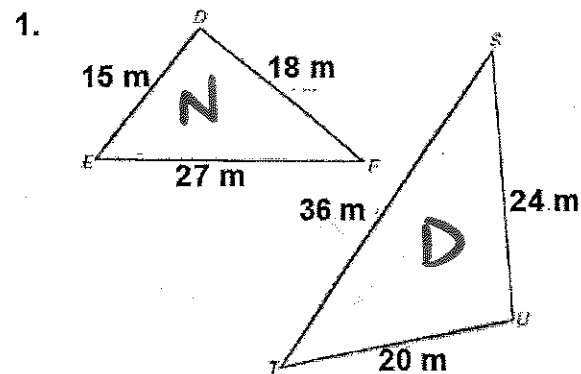
Shortest side:

$$\frac{2}{6} \quad \frac{3}{9}$$

Longest side:

$$\frac{3}{9} \quad \frac{2}{6}$$

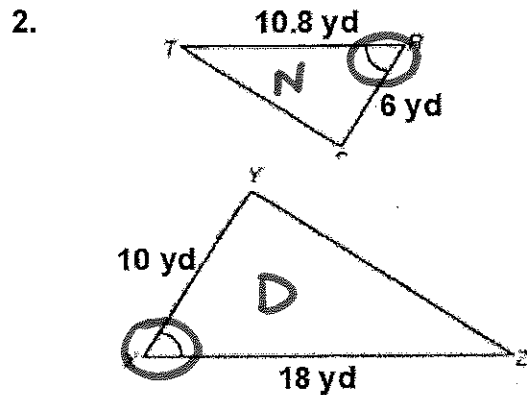
Determine if the following triangles are similar. Justify your answer.



$$\frac{15}{20} \quad \frac{18}{24} \quad \frac{27}{36}$$

$$\frac{3}{4} \quad \frac{3}{4} \quad \frac{3}{4}$$

similar using SSS SIM. TH.

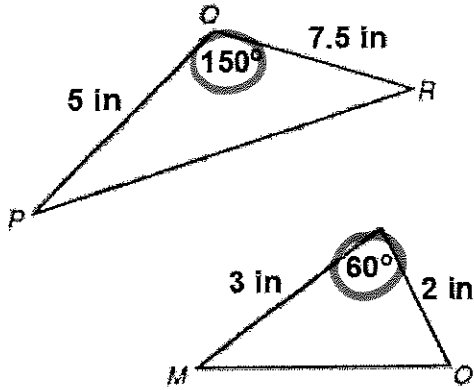


$$\frac{6}{10} \quad \frac{10.8}{18}$$

$$\frac{3}{5} \quad \frac{3}{5}$$

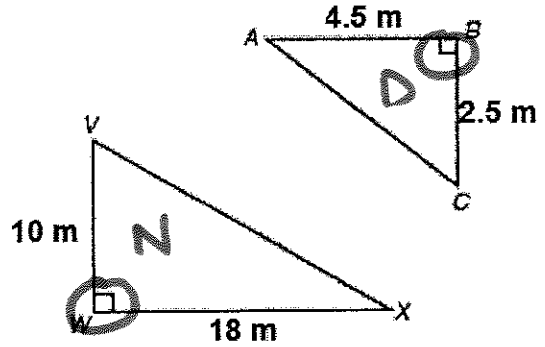
similar using SAS SIM. TH.

3.



Not similar

4.

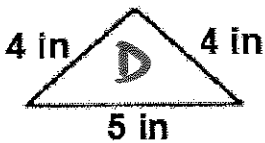
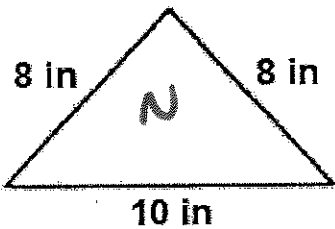


$$\frac{10}{2.5} \quad \frac{18}{4.5}$$

(4) (4)

Similar using SAS Sim.Th.

5.

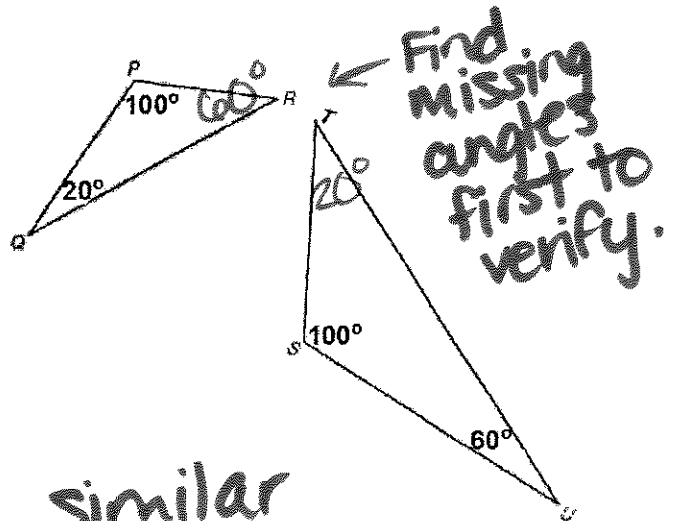


$$\frac{8}{4} \quad \frac{8}{4} \quad \frac{10}{5}$$

(2) (2) (2)

Similar using SSS Sim.Th.

6.



Similar using AA Sim.Th.