Date: _____

4.3 Similar Triangles

***MathLinks 9*, pages 146–153**

Key Ideas Review

Choose from the following terms to complete #1 to 2.

angles	both	not	proportion	scale factor	sides	similar

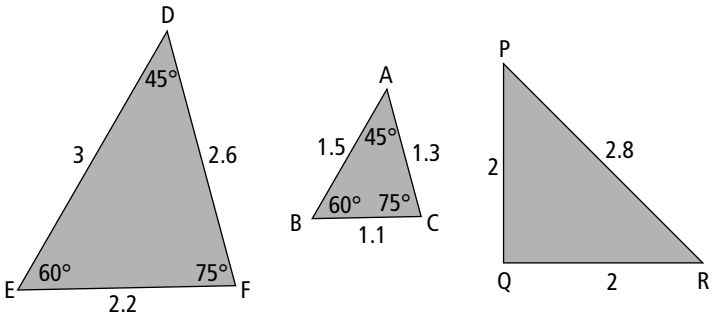
1. Triangles are similar if one of the following conditions is true:

a) Corresponding _____ are equal in measure.

b) Corresponding _____ are proportional in length.

2. You can solve problems for similar triangles using a _____ _____ or a _____.

3.



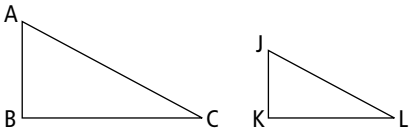
a) Is $\triangle DEF$ similar to $\triangle ABC$? YES NO Explain.

b) Is $\triangle DEF$ similar to $\triangle PQR$? YES NO Explain.

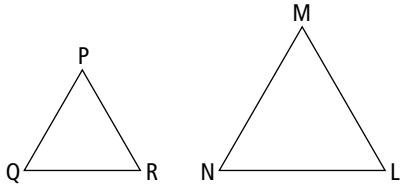
Check Your Understanding

4. What are the corresponding angles and the corresponding sides for the following pairs of similar triangles?

a)



b)

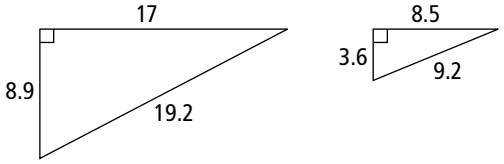


Date: _____

5. Determine which pair of triangles is similar. Explain how you know.

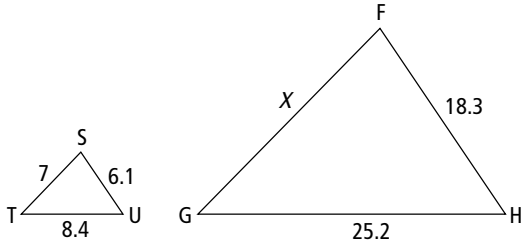
Triangle	Angles	Sides
△PQR	∠P = 90° ∠Q = 45° ∠R = 45°	PQ = 3 QR = 4.2 PR = 3
△STU	∠S = 90° ∠T = 60° ∠U = 30°	ST = 9.2 TU = 18.4 SV = 15.9
△VWX	∠V = 45° ∠W = 90° ∠X = 45°	VW = 11.3 WX = 11.3 VX = 16

6. Are these triangles similar? Explain how you know.

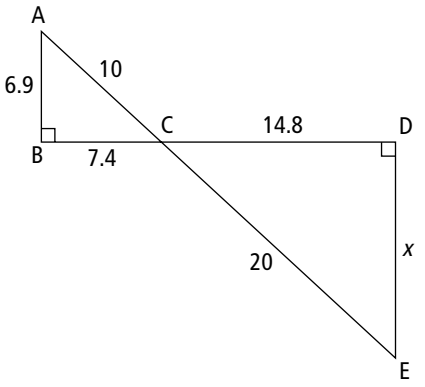


7. Determine the missing side lengths of the triangles below. Show your calculations.

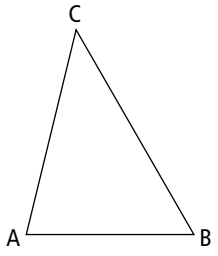
a)



b)



8. Draw a triangle that is similar to the one shown. Label the measurements for the angles and sides on your triangle.



9. Kaylee is 100 cm tall and is standing so that her mother's shadow covers her shadow. She is 90 cm from her mother and her mother's shadow is 225 cm long. How tall is her mother? Express your answer to the nearest centimetre.