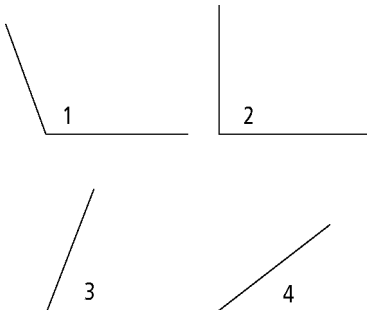
Name: _____ Date: _____

**BLM 3–2**

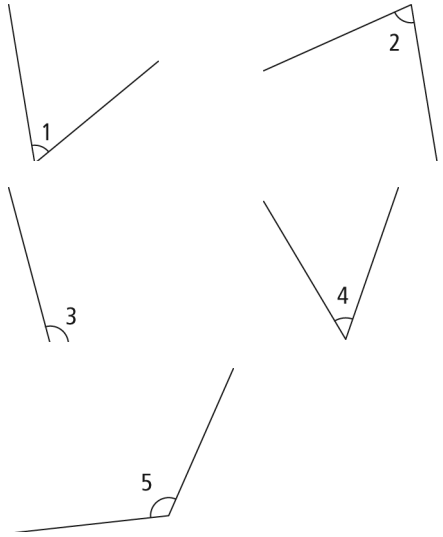
# Chapter 3 Prerequisite Skills

*Show all your work.*

**1.** Which angle has a measure of about 75°?




**2.** Estimate and measure each angle.




**3.** Draw an angle that you estimate has the given measure. Then, measure each of your angles to see how close your estimate is to the actual measure.

**a)** 30°

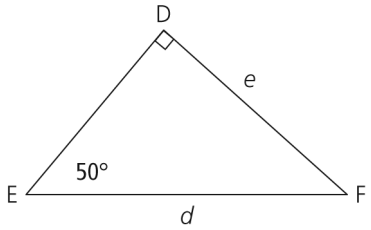
**b)** 65°

**c)** 90°

**d)** 130°

**4.** Sketch ΔEFG with ∠E = 90° and ∠F = 40°. Do not use a protractor. Label your sketch.

**5.** Consider ΔDEF with ∠D = 90° and ∠E = 50°:




**a)** Name side DE another way.

**b)** What is the size of ∠F?

**c)** What is the shortest side of ΔDEF?

**d)** Name ∠F another way.

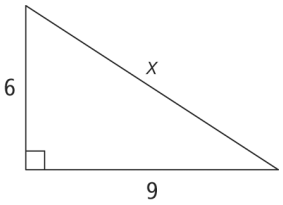
**6.** Right triangle PQR has the following properties:

- an angle of 30°
- the shortest side is labelled PQ

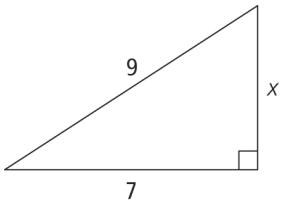
How many ways could you sketch and label the triangle? Explain.

**7.** For each right triangle, write a mathematical equation that demonstrates the Pythagorean relationship.

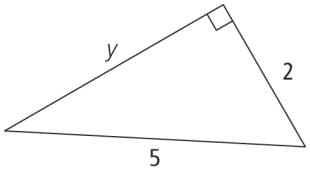
**a)**




**b)**




**c)**



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(continued)

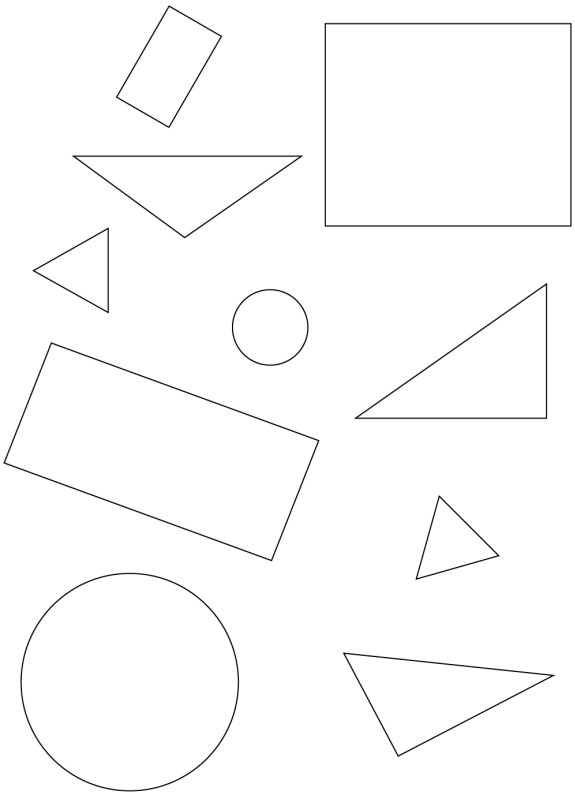
**8.** Solve for $x$.

**a)** $3x - 2 = 13$

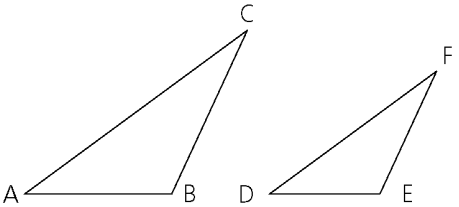
**b)** $x^2 = 3^2 + 4^2$

**c)** $169 = x^2 + 25$

**9.** Sort the following figures into sets so that all the figures in each set are similar. Explain your thinking.



**10.** $\Delta ABC$ is similar to $\Delta DEF$.

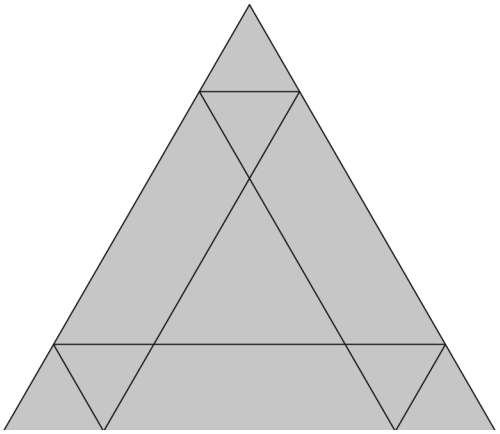



**a)** Show how the angles of the two triangles are related.

**b)** Which sides of the triangles are proportional? Explain what this means.

**c)** Complete the proportion to make a true statement: $\frac{AB}{DE} = \frac{x}{DF}$.

**11.**



**a)** How many triangles are in the figure?

**b)** How many *different* triangles are in the figure?