Lesson 1 Practice Problems

1. Here are questions about two types of angles.

   a. Draw a right angle. How do you know it's a right angle? What is its measure in degrees?

   b. Draw a straight angle. How do you know it's a straight angle? What is its measure in degrees?

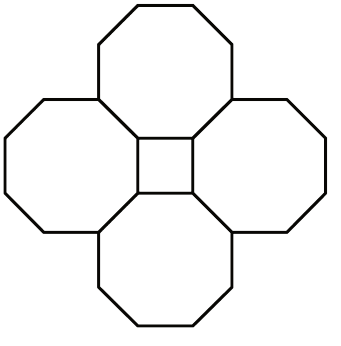
2. An equilateral triangle's angles each have a measure of 60 degrees.

   a. Can you put copies of an equilateral triangle together to form a straight angle? Explain or show your reasoning.

   b. Can you put copies of an equilateral triangle together to form a right angle? Explain or show your reasoning.

3. Here is a square and some regular octagons.

   In this pattern, all of the angles inside the octagons have the same measure. The shape in the center is a square. Find the measure of one of the angles inside one of the octagons.



4. The height of the water in a tank decreases by 3.5 cm each day. When the tank is full, the water is 10 m deep. The water tank needs to be refilled when the water height drops below 4 m.

   a. Write a question that could be answered by solving the equation $10 - 0.035d = 4$.

   b. Is 100 a solution of $10 - 0.035d > 4$? Write a question that solving this problem could answer.

(From Unit 6, Lesson 17.)

5. Use the distributive property to write an expression that is equivalent to each given expression.

   a. $-3(2x - 4)$

   b. $0.1(-90 + 50a)$

   c. $-7(-x - 9)$

   d. $\frac{4}{5}(10y + -x + -15)$

(From Unit 6, Lesson 18.)

6. Lin's puppy is gaining weight at a rate of 0.125 pounds per day. Describe the weight gain in days per pound.

(From Unit 2, Lesson 3.)