Name

1-3A Lesson Master

SKILLS Objectives B, C

In 1–3, consider three instances of the pattern below:

$$|4| = 4 \qquad\qquad \left|\tfrac{1}{3}\right| = \tfrac{1}{3} \qquad\qquad |5.32| = 5.32$$
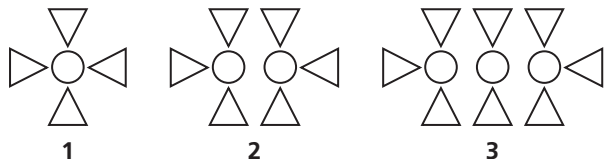
1. Describe the pattern using one variable. _____

2. Find another number that is an instance of this pattern.

   _____

3. Find a number that is a counterexample to this pattern.

   _____

4. Using the table, evaluate each expression for 4 different values of the variable.

n	$5n^2 + 9n - 2n + 5$	$5n^2 + 12$

   Use your results to determine whether the expression $5n^2 + 9n - 2n + 5$ appears to be equivalent to the expression $5n^2 + 12$ and explain your reasoning.

   _____

   _____

In 5–8, refer to 3 instances of the pattern that is made with circles and triangles.

5. Draw the fourth instance of the pattern.

6. How many circles and how many triangles will there be in the 10th instance? _____

7. How many circles are needed to make the nth design? _____

8. Describe the pattern of triangles using the variable n to represent the number of circles. _____