Grade 3 Answers

Geometric Patterns
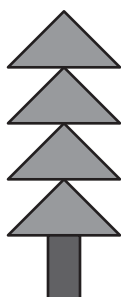
Explore and Grow

Sample answer: One orange square is added to the top and one orange square is added to the bottom of a figure to make the next figure in the pattern.
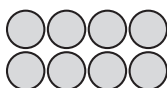
The number of shapes in each figure of the pattern is an odd number and increases by 2 as the pattern continues.
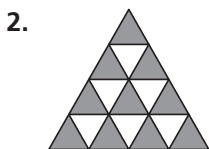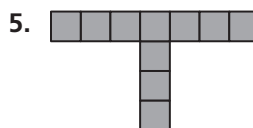
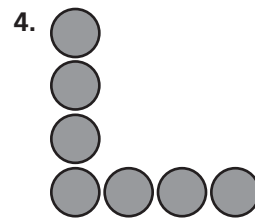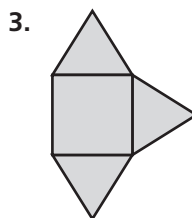### Think and Grow

Example triangle

Example 2 circles

Show and Grow

1.

2.

Apply and Grow: Practice
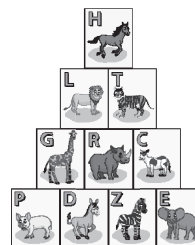
3.

4.

5.

6.

7. *Sample answer:*

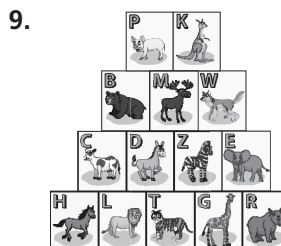Add 3 circles to a figure to create the next figure in the pattern.

8. no; Some patterns grown by an increasing number of objects from one figure to the next.

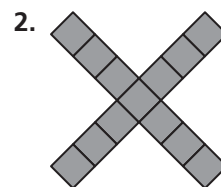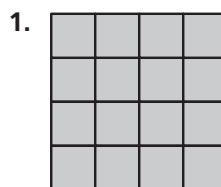### Think and Grow: Modeling Real Life

Example

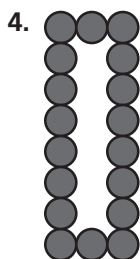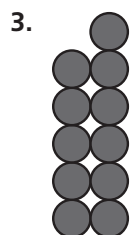### Show and Grow

9.

10. 6 cards

Homework & Practice

1.

2.

3.

4.

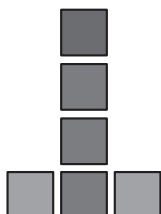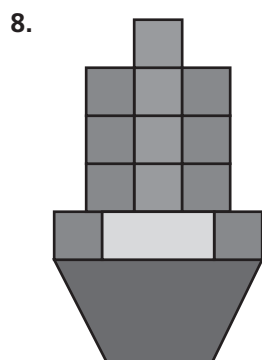**5.** Add 1 blue square to below the red square in a figure to create the next figure in the pattern.

6. no; A column of 5 yellow circles is added to the left of the third figure to create the next figure in the pattern. So, there are 6 blue circles and 9 yellow circles in the next figure of the pattern.

7. 15 white triangles; There are 6 white triangles in Figure 3, a row of 4 white triangles is added to make Figure 4, and a row of 5 white triangles is added to make Figure 5; $6 + 4 + 5 = 15$.

8.

Review and Refresh

9. 6   **10.** 8