

Repeating Patterns

Patterns can grow or patterns can repeat.
 Repeating patterns can use numbers or shapes.
 You can extend a pattern by finding a rule for the pattern.

Repeating Patterns with Shapes

Use this pattern.
 What is the next shape?



Assign each shape a number. When a shape repeats use the same number.



The next shape is the second shape.



Repeating Patterns with Numbers

Use the pattern below. What is the 12th number in this pattern?

4, 7, 3, 5, 4, 7, 3, 5, 4, 7,

Find the pattern.
 The pattern is 4, 7, 3, 5,
 and then it repeats.

Extend the pattern until reaching the 12th number.

4, 7, 3, 5, 4, 7, 3, 5, 4, 7, 3, 5

The 12th number is 5.

1. Draw the next three shapes in the pattern.



2. What are the next three numbers in the pattern below?
 5, 8, 3, 1, 5, 8, 3, 1, 5, 8

3. **Explain It** In the pattern in Exercise 2, how could you find the 15th number? What is that number?

