

Number and Shape Patterns



Dear Family,

This week your child is learning about number and shape patterns.

Your child might see a number pattern like the one below. He or she is learning how to find the next numbers in the pattern.

3, 6, 9, 12, _____, _____

The **rule** in the number pattern is "add 3." So, the next numbers in the pattern are 15, 18.

Another way to describe the pattern is to say that the numbers alternate in an odd/even pattern. The first number is odd, the second number is even, the third number is odd, and so on.

Your child is also learning about shape patterns such as the one below.



The pattern of shapes is:

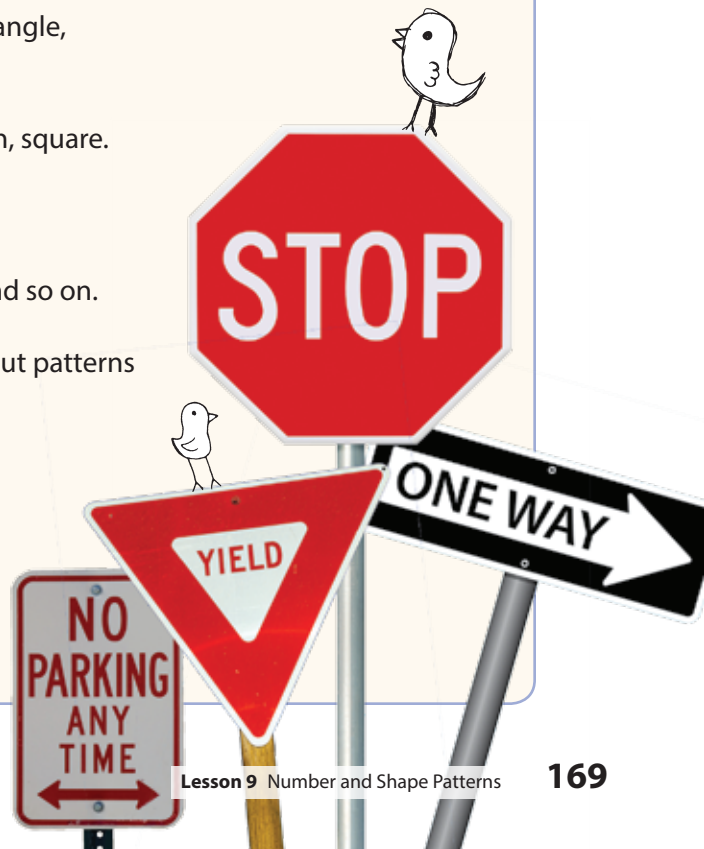
pentagon, square, triangle, pentagon, square, triangle,
pentagon, square, triangle

So, the next two shapes in the pattern are pentagon, square.

Another way to describe the shape pattern is to say that the pattern has shapes with:

5 sides, 4 sides, 3 sides, 5 sides, 4 sides, 3 sides, and so on.

Invite your child to share what he or she knows about patterns by doing the following activity together.



ACTIVITY NUMBER PATTERNS

Do this activity with your child to find patterns in numbers.

- Look at the number pattern below with your child.

11, 22, 33, 44, 55, 66, 77, 88, 99, ...

- Work together to identify the rule for the pattern.
- Talk about other patterns you notice in the numbers.

For example:

- *The numbers alternate between odd and even: the first number is odd, the second number is even, and so on.*
 - *The tens and ones digits are the same in each number.*
 - *The tens and ones digits each go up by 1 in the next number in the pattern.*
- Next, look at another number pattern and work together to identify the rule for the pattern.

12, 23, 34, 45, 56, 67, 78, 89, ...

- Talk about other patterns you notice in the numbers. Discuss how this pattern and the first pattern are alike and different.
- Challenge your child to think about the kind of number pattern you would get using the rule "subtract 11."

