

Number Sequences

A number sequence is a pattern that increases or decreases while following a rule.

What are the next three numbers in this pattern?

36, 42, 48, 54, ...

Step 1

Find the pattern.

You can subtract to find the pattern.

$$54 - 48 = 6$$

$$48 - 42 = 6$$

$$42 - 36 = 6$$

Each number is 6 more than the number before it. So, a rule for the pattern is "add 6."

Step 2

Use this rule to extend the pattern.

Start with 54. Add 6.

$$54 + 6 = 60$$

$$60 + 6 = 66$$

$$66 + 6 = 72$$

So, the next three numbers are 60, 66, and 72.

Find the next three numbers in each pattern.

Write a rule for the pattern.

1. 35, 40, 45, ■, ■, ■ 2. 43, 39, 35, ■, ■, ■ 3. 32, 39, 46, ■, ■, ■

4. 13, 21, 29, ■, ■, ■ 5. 75, 65, 55, ■, ■, ■ 6. 51, 45, 39, ■, ■, ■

7. **Critical Thinking** How can you use subtraction to complete an addition pattern? Use Exercise 3 as an example.
