Pattern Detectives

Find what comes next.

2.PFA.1.a · Identify and describe repeating and increasing patterns.

Name _____ Date _____

SPOT THE RULE

A repeating pattern repeats a core. An increasing pattern has terms that get larger. In these examples, each term increases by a constant amount. Find that amount by comparing neighboring terms, then use the stated rule to continue.

Worked example

Toy cars go blue, green, orange, blue, green, ___. What comes next?

1. See the group: blue, green, orange.
2. The same group starts again.
3. After green comes orange.

orange

1. Practice

Mia lines up crayons: red, yellow, red, yellow, ___. What color comes next?

2. Practice

A puppy gets 1 treat, then 2, then 3. Next time it gets ___ treats.

3. Practice

A bracelet has star, heart, star, heart. Is the pattern repeating or increasing?

4. Practice

Jay builds towers with 3 blocks, 5 blocks, 7 blocks. The next tower has ___ blocks.

5. Apply

At snack time, fruit cups go apple, orange, apple, orange, ___. What fruit cup is next?

6. Apply

Nia feeds her toy dinosaur 2 leaves, then 4 leaves, then 6 leaves. How many leaves come next?

7. Challenge

A game display shows 2, 5, 8, 11. Write the next two numbers. Tell how the pattern grows.

What to accept

Accept color or shape words in place of pictures. For the challenge, accept any clear statement that the pattern adds 3 each time.

1. Practice

red

2. Practice

4

3. Practice

repeating

4. Practice

9

5. Apply

apple

The apple, orange group repeats, so apple is next.

6. Apply

8 leaves

The number of leaves goes up by 2 each time, so 6 plus 2 is 8.

7. Challenge

14, 17. It adds 3 each time.