

Pattern Builders

Make patterns with colors, objects, and numbers.

GRADE 2 • 2.PFA.1.c

2.PFA.1.c "Create a repeating or increasing pattern using various representations (e.g., objects, pictures, numbers)."

NAME _____

DATE _____

BUILD THE RULE

A repeating pattern has a part that comes again in the same order. An increasing pattern grows by the same amount each time.

WORKED EXAMPLE

A bracelet shows: yellow bead, yellow bead, green bead, green bead, yellow bead, yellow bead, ____, ____. What beads come next?

1. Find the repeat part: yellow, yellow, green, green.
2. The pattern starts the repeat again with yellow, yellow.
3. After yellow, yellow come green, green.

Answer: green bead, green bead

PRACTICE 5 problems

- 1** A toy train has cars numbered 1, 2, 3, _____. What number comes next?

ANSWER _____

- 2** Pip has bandanas in this pattern: red, blue, red, blue, _____. What color comes next?

ANSWER _____

- 3** A block tower has 2 blocks, then 5 blocks, then 8 blocks, then _____. How many blocks are next?

ANSWER _____

- 4** Avery makes a snack pattern. Use the rule apple, cheese, repeat. Write 6 snacks in order.

ANSWER _____

- 5** Prize tickets in a game go 2, 4, 6, ____, ____. Write the next two numbers.

ANSWER _____

APPLY IT Show your work

- 1** Kai is making a game board. The spaces repeat in this order: star, circle, triangle. Write the next 6 spaces after star, circle, triangle.

WORK SPACE

ANSWER _____

- 2** Ava finds 3 shells on Monday, 5 shells on Tuesday, and 7 shells on Wednesday. If her pattern continues, how many shells will she find on Thursday?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

At a pet show, the first dog gets 1 treat, the second gets 3 treats, the third gets 6 treats, and the fourth gets 10 treats. How many treats should the fifth dog get? Explain how you know.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A toy train has cars numbered 1, 2, 3, _____. What number comes next?	4
2	Pip has bandanas in this pattern: red, blue, red, blue, _____. What color comes next?	red
3	A block tower has 2 blocks, then 5 blocks, then 8 blocks, then _____. How many blocks are next?	11
4	Avery makes a snack pattern. Use the rule apple, cheese, repeat. Write 6 snacks in order.	apple, cheese, apple, cheese, apple, cheese
5	Prize tickets in a game go 2, 4, 6, ____, ____. Write the next two numbers.	8, 10

PART 2 • APPLY IT

1. **star, circle, triangle, star, circle, triangle** The repeat part has three spaces: star, circle, triangle. Repeat that part two times.
2. **9 shells** The number of shells increases by 2 each day. Add 2 to 7.

CHALLENGE

15 treats. The groups grow by 2, then 3, then 4, so the next group grows by 5.

Accept answers with commas, words, or clearly ordered lists. For repeating patterns, the order must stay the same.