LESSON MAKER PRO

Pattern Detectives

Find the rule, then find what comes next.

GRADE 3 · 3.A.1.1

3.A.1.1 "Create, describe, and extend patterns involving addition, subtraction, or multiplication to solve problems in a variety of contexts."

NAME _____ DATE _____

FIND THE RULE

Look at how each number changes to the next. Use the same rule to extend the pattern.

WORKED EXAMPLE

How many stickers are there on day 4?

STICKERS COLLECTED

Day	Stickers
1	21
2	26
3	31

1. 26 - 21 = 5.
2. 31 - 26 = 5.
3. Add 5 again: 31 + 5 = 36.

Answer: 36 stickers

PRACTICE 4 problems

1 8, 12, 16, ___. Write the next number.

ANSWER _____

2 50, 47, 44, ___. Write the next number.

ANSWER _____

3 3, 6, 12, ___. Write the rule and the next number.

ANSWER _____

_____

4 Start at 14. Add 3 each time. Write the next two numbers.

ANSWER _____

_____

APPLY IT Show your work

1 Mia earns points in each game round. If the pattern continues, how many points does she earn in round 4? Tell the rule.

GAME POINTS

Round	Points
1	10
2	16
3	22

ANSWER _____

2 A bracelet pattern uses 4 beads on the first bracelet, 8 on the second, and 16 on the third. How many beads go on the fourth?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Start at 48 and subtract 7 each time. What is the first number less than 20? Write the pattern to show how you know.

WORK SPACE AND ANSWER

ANSWER KEY

Pattern Detectives

GRADE 3 · 3.A.1.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	8, 12, 16, ___. Write the next number.	**20**
2	50, 47, 44, ___. Write the next number.	**41**
3	3, 6, 12, ___. Write the rule and the next number.	**Multiply by 2; 24**
4	Start at 14. Add 3 each time. Write the next two numbers.	**17, 20**

PART 2 · APPLY IT

1. **28 points; add 6 each round** The points increase by 6 each round. Add 6 to 22 to get 28.
2. **32 beads** The number of beads doubles each time. Multiply 16 by 2 to get 32.

CHALLENGE

13; 48, 41, 34, 27, 20, 13

For the challenge, accept a pattern that stops at 13. For rule answers, accept equivalent wording such as "double" for "multiply by 2."