LESSON MAKER PRO

Pattern Power

Find what changes from term to term.

GRADE 3 · 3.PFA.1.a

3.PFA.1.a "Identify and describe increasing and decreasing patterns using various representations (e.g., objects, pictures, numbers, number lines)."

NAME _____ DATE _____

SPOT THE CHANGE

A pattern is increasing when the numbers get larger. A pattern is decreasing when the numbers get smaller. Look at how much the numbers change each time to describe the rule.

WORKED EXAMPLE

Describe the pattern: 6, 12, 18, 24, ____.

1. Start with 6 and move to 12.
2. The number increases by 6.
3. Add 6 to 24.
4. 24 + 6 = 30.

Answer: Increasing pattern, add 6 each time. The missing number is 30.

PRACTICE 6 problems

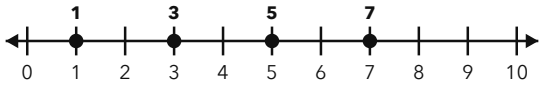
1 Describe the pattern and write the next number: 5, 10, 15, 20, ___.

ANSWER _____

2 Describe the pattern and write the next number: 28, 25, 22, 19, ___.

ANSWER _____

3 The points on the number line show a pattern. Describe the pattern and write the next number.



ANSWER _____

4 A sticker count follows this pattern: 27, 23, 19, 15, ___. Is the pattern increasing or decreasing? Write the next number.

ANSWER _____

5 Write the missing number: 14, 21, 28, ___.

ANSWER _____

6 Which sequence is decreasing? Describe its rule. A. 9, 13, 17 B. 32, 29, 26

ANSWER _____

APPLY IT Show your work

1 Maya records how many pages she reads after school each day. Describe the pattern. How many pages will she read on Friday?

PAGES MAYA READ

Day	Pages
Monday	7
Tuesday	9
Wednesday	11
Thursday	13

ANSWER _____

2 In a video game, Jalen's bonus points are 55, 50, 45, and 40 after four rounds. Describe the pattern. How many bonus points will he have after the next round?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A robot's steps follow this pattern: 31, 32, 34, 37, 41, ___. Write the next number. Explain how the amount added changes each time.

WORK SPACE AND ANSWER

ANSWER KEY

Pattern Power

GRADE 3 · 3.PFA.1.a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Describe the pattern and write the next number: 5, 10, 15, 20, ___.	**Increasing, add 5 each time; 25**
2	Describe the pattern and write the next number: 28, 25, 22, 19, ___.	**Decreasing, subtract 3 each time; 16**
3	The points on the number line show a pattern. Describe the pattern and write the next number.	**Increasing, add 2 each time; 9**
4	A sticker count follows this pattern: 27, 23, 19, 15, ___. Is the pattern increasing or decreasing? Write the next number.	**Decreasing; 11**
5	Write the missing number: 14, 21, 28, ___.	**35**
6	Which sequence is decreasing? Describe its rule. A. 9, 13, 17 B. 32, 29, 26	**B; subtract 3 each time**

PART 2 · APPLY IT

1. **Increasing, add 2 pages each day; 15 pages** The number of pages rises by 2 each day. Add 2 to 13 to get 15.
2. **Decreasing, subtract 5 points each round; 35 bonus points** The points decrease by 5 each round. Subtract 5 from 40 to get 35.

CHALLENGE

46. The pattern adds 1, then 2, then 3, then 4, so it adds 5 next.

Accept equivalent descriptions such as “goes up by” for increasing and “goes down by” for decreasing. For the challenge, students should identify the changing additions of 1, 2, 3, 4, and then 5.