LESSON MAKER PRO

Pattern Power

Find the rule and keep the pattern going.

GRADE 4 · MA.4.AR.3

MA.4.AR.3 "Recognize numerical patterns, including patterns that follow a given rule."

NAME _____ DATE _____

SPOT THE RULE

Look at how one number changes to the next. Keep using the same rule, such as adding, subtracting, or multiplying by the same number.

WORKED EXAMPLE

Complete the pattern: 41, 48, 55, ____, ____

1. 48 - 41 = 7, so add 7 each time.
2. 55 + 7 = 62.
3. 62 + 7 = 69.

Answer: 62, 69

PRACTICE 6 problems

1 Complete the pattern: 9, 13, 17, ___, ___

ANSWER _____

2 Complete the pattern: 30, 27, 24, ___, ___

ANSWER _____

3 Start at 8. Add 9 each time. Complete: 8, 17, ___, ___

ANSWER _____

4 Start at 40. Subtract 5 each time. Complete: 40, ___, 30, ___, 20

ANSWER _____

5 Complete the pattern: 3, 9, 27, ___

ANSWER _____

6 The pattern should add 4 each time: 11, 15, 19, 24, 27. Which number does not fit? What should it be?

ANSWER _____

APPLY IT Show your work

1 On Monday, Jalen earns 13 points on a school esports scoreboard. He earns 8 more points each day than the day before. How many points does he earn on Thursday?

WORK SPACE

ANSWER _____

2 Priya's first dance-club playlist has 15 songs. Each new playlist has 8 more songs than the one before. How many songs are on her third playlist?

WORK SPACE

ANSWER _____

CHALLENGE One step up

The pattern is 6, 12, 24, 48, ___, ___. What is the rule? Write the next two numbers and explain how you know.

WORK SPACE AND ANSWER

ANSWER KEY

Pattern Power

GRADE 4 · MA.4.AR.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Complete the pattern: 9, 13, 17, ___, ___	**21, 25**
2	Complete the pattern: 30, 27, 24, ___, ___	**21, 18**
3	Start at 8. Add 9 each time. Complete: 8, 17, ___, ___	**26, 35**
4	Start at 40. Subtract 5 each time. Complete: 40, ___, 30, ___, 20	**35, 25**
5	Complete the pattern: 3, 9, 27, ___	**81**
6	The pattern should add 4 each time: 11, 15, 19, 24, 27. Which number does not fit? What should it be?	**24; it should be 23.**

PART 2 · APPLY IT

1. **37 points** The daily points are 13, 21, 29, and 37. Thursday's total is 37 points.
2. **31 songs** The playlist sizes are 15, 23, and 31. The third playlist has 31 songs.

CHALLENGE

Multiply by 2 each time. The next two numbers are 96 and 192 because 48 × 2 = 96 and 96 × 2 = 192.

Accept correct wording for the rules, such as “add 4” or “go up by 4.” For the error item, accept an answer that identifies 24 and gives 23 as the replacement.