LESSON MAKER PRO

Plot the Pattern

Use rules to make and graph ordered pairs.

GRADE 5 · 5.A.1.2

5.A.1.2 "Use a rule or table to represent ordered pairs of whole numbers and graph these ordered pairs on a coordinate plane, identifying the origin and axes in relation to the coordinates."

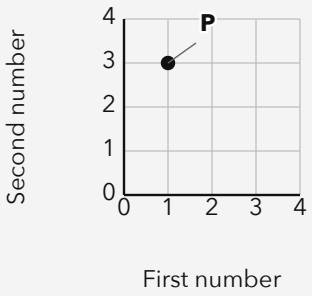
NAME _____ DATE _____

FROM RULE TO POINT

A rule matches each first number to a second number. Write the match as (first, second). To graph it, start at the origin (0,0), move right on the horizontal axis for the first number, then up on the vertical axis for the second.

WORKED EXAMPLE

The graph shows P for the rule: second number = first number + 2. Name P and check the rule.



1. Start at the origin, (0,0).
2. Move right 1 and up 3 to P.
3. Check the rule: 1 + 2 = 3.

Answer: P is (1,3).

PRACTICE 4 problems

1 Rule: second number = first number + 4. Write the ordered pair when the first number is 2.

ANSWER _____

2 Rule: second number = first number × 2. Write the ordered pair when the first number is 4.

ANSWER _____

3 Rule: second number = first number + 5. Write the ordered pairs for first numbers 0 and 2.

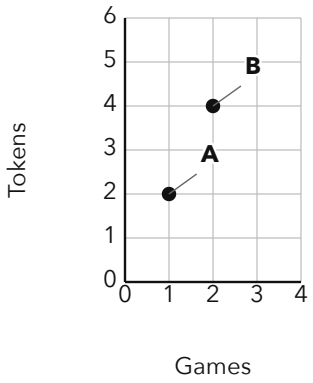
ANSWER _____

4 To plot (6,4), how far do you move right and up from the origin?

ANSWER _____

APPLY IT Show your work

1 An arcade charges 2 tokens per game. The graph shows games played and tokens spent. Plot the point for 3 games and name it.



ANSWER _____

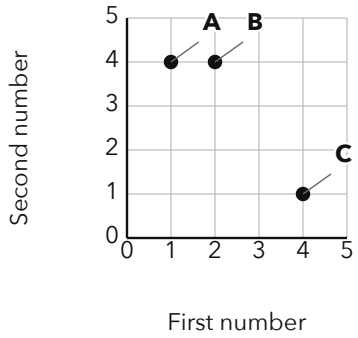
2 A reading app gives 4 badges per book. Make a two-row table for 1 and 2 books. Then write the ordered pairs (books, badges).

WORK SPACE

ANSWER _____

CHALLENGE One step up

The rule is second number = 5 - first number. Which plotted point breaks the rule? Give its correct ordered pair and explain.



WORK SPACE AND ANSWER

ANSWER KEY

Plot the Pattern

GRADE 5 · 5.A.1.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Rule: second number = first number + 4. Write the ordered pair when the first number is 2.	**(2,6)**
2	Rule: second number = first number × 2. Write the ordered pair when the first number is 4.	**(4,8)**
3	Rule: second number = first number + 5. Write the ordered pairs for first numbers 0 and 2.	**(0,5) and (2,7)**
4	To plot (6,4), how far do you move right and up from the origin?	**6 units right and 4 units up**

PART 2 · APPLY IT

1. **(3,6)** Three games cost 3 × 2 = 6 tokens. The point is 3 units right and 6 units up from the origin.
2. **Books | Badges; 1 | 4; 2 | 8. Ordered pairs: (1,4) and (2,8).** Multiply each number of books by 4 to find the badges. Use books as the first coordinate.

CHALLENGE

B breaks the rule. Its correct ordered pair is (2,3) because 5 - 2 = 3.

Accept a correctly plotted point without a new label in the arcade problem. For the challenge, the explanation must show that B's second coordinate should be 3.