

Plot the Pattern

Use ordered pairs from rules, tables, and real situations.

GRADE 5 • TEKS 5.8.C

5.8.C "graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input-output table."

NAME _____

DATE _____

COORDINATE CLUES

An ordered pair is written (input, output). In the first quadrant, start at 0, move right to the input, then move up to the output.

WORKED EXAMPLE

Use the input-output table to write the ordered pairs you would graph.

INPUT AND OUTPUT

Input	Output
2	5
4	10
6	15

1. Match the first row as input 2 and output 5.
2. Write the pair as (2,5).
3. Repeat for each remaining row.

Answer: (2,5), (4,10), (6,15)

PRACTICE 5 problems

- 1** The output is 8 more than the input. Write the ordered pair for input 3.

ANSWER _____

- 2** The output is 3 times the input. Write the ordered pair for input 7.

ANSWER _____

- 3** Inputs start at 7 and increase by 2. Each output is 7 more than its input. Write the next three ordered pairs.

ANSWER _____

- 4** A point is at (12,3). What is its x-coordinate and its y-coordinate?

ANSWER _____

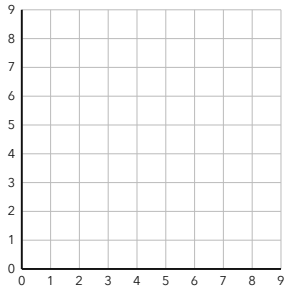
- 5** The output is 9 more than the input. Write the ordered pair for input 8.

ANSWER _____

APPLY IT Show your work

1

Maya tracks her game score. After round 1, she has 7 points. After round 3, she has 8 points. After round 7, she has 9 points. Plot the three ordered pairs, with rounds on the horizontal axis and points on the vertical axis. What point shows her score after round 3?



WORK SPACE

ANSWER _____

2

A video game gives 7 coins for each level completed. Write the ordered pairs for 1 level, 3 levels, and 7 levels.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A pattern includes the points $(7,11)$, $(9,14)$, and $(11,17)$. Write the next ordered pair. Explain how both coordinates change.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	The output is 8 more than the input. Write the ordered pair for input 3.	(3,11)
2	The output is 3 times the input. Write the ordered pair for input 7.	(7,21)
3	Inputs start at 7 and increase by 2. Each output is 7 more than its input. Write the next three ordered pairs.	(7,14), (9,16), (11,18)
4	A point is at (12,3). What is its x-coordinate and its y-coordinate?	x-coordinate: 12; y-coordinate: 3
5	The output is 9 more than the input. Write the ordered pair for input 8.	(8,17)

PART 2 • APPLY IT

1. **Plot (1,7), (3,8), and (7,9). The point for round 3 is (3,8).** Use round number as the input and score as the output. The second situation gives (3,8).
2. **(1,7), (3,21), (7,49)** Multiply each number of levels by 7 to find the number of coins. Write levels first in every ordered pair.

CHALLENGE

(13,20). The first coordinate increases by 2 each time, and the second coordinate increases by 3 each time.

Accept ordered pairs with spaces after commas or without spaces. For the graphing problem, accept accurately plotted points and the identified point (3,8).