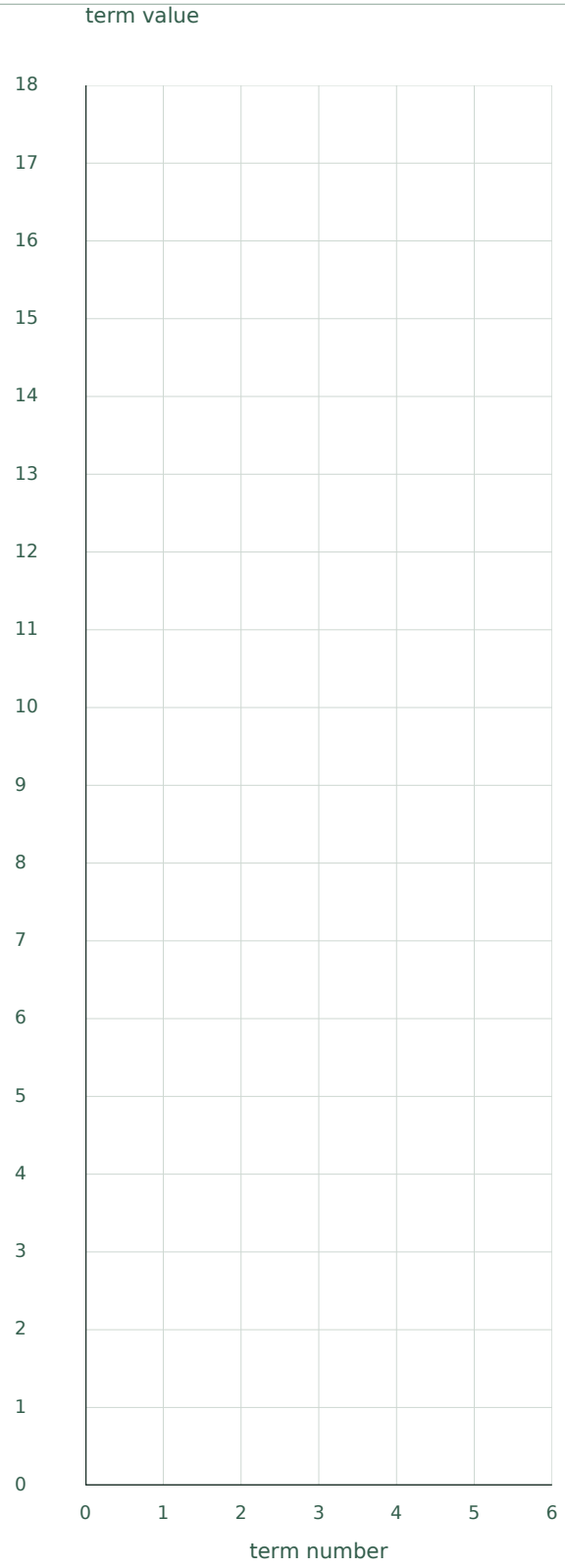
Graphing Patterns on the Coordinate Plane: Plot Sequences and State the Rule

Blank coordinate grid for student plotting



Student plots ordered pairs, connects in order, and writes the rule.

Graphing Patterns on the Coordinate Plane: Plot Sequences and State the Rule

Pattern worksheet: six sequences to plot, connect, and rule

Student worksheet; each sequence self-contained with ordered pairs; blank grids for plotting; rule line for words.

Plot each sequence on a coordinate grid. Connect the points in order. Write the rule in words.

Sequence 1: (1, 2), (2, 5), (3, 8), (4, 11), (5, 14).

Sequence 2: (1, 10), (2, 8), (3, 6), (4, 4), (5, 2).

Sequence 3: (1, 1), (2, 4), (3, 9), (4, 16), (5, 25).

Sequence 4: (1, 3), (2, 6), (3, 3), (4, 6), (5, 3).

Sequence 5: (1, 5), (2, 9), (3, 13), (4, 17), (5, 21). Rule: start at 5 and add 4 to each term. Equivalently, term value = 4 times term number plus 1. Check: 4(1)+1=5, 4(5)+1=21. Change: 9-5=4, 13-9=4, 17-13=4, 21-17=4. Points lie on a straight line. Plot (1,5),(2,9),(3,13),(4,17),(5,21) and connect in order. Scale 1 unit per grid line; axes labeled term number and term value. Rule in words: start at 5 and add 4 to each term. Equivalently, term value = 4 times term number + 1

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Original tasks 1, 2, 3 / blank responses

Task 1

Plot the sequence (1, 2), (2, 5), (3, 8), (4, 11), (5, 14). Connect the points in order and write the rule in words.

Task 2

Plot the sequence (1, 10), (2, 8), (3, 6), (4, 4), (5, 2). Connect the points in order and write the rule in words.

Task 3

Plot the sequence (1, 1), (2, 4), (3, 9), (4, 16), (5, 25). Connect the points in order. The points do not lie on one straight line. Write a rule in words that describes how each term value is related to its term number.

Graphing Patterns on the Coordinate Plane: Plot Sequences and State the Rule

Original tasks 4 / blank responses

Task 4

Plot the sequence (1, 3), (2, 6), (3, 3), (4, 6), (5, 3). Connect the points in order. The pattern alternates. Write a rule in words that produces the sequence.