

Activity 1 Assessment
Exploring Patterns

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Identifies increasing and decreasing patterns

Is this an increasing or decreasing pattern? What does this tell you about the graph of the pattern?

Term number	Term value
0	11
1	8
2	5
3	2

"When the term number increases, the term value decreases. So, I know this is a decreasing pattern. As you move right on a graph, the points fall to the right."

Identifies linear patterns

Term number	Term value
0	11
1	8
2	5
3	2

"Every time the term number increases by 1, the term value decreases by 3. So, the pattern has a constant rate. This means it is linear. I know the graph will be a series of points that lie along a line."

Determines rate of change and initial value of a linear pattern

What is the constant rate for the pattern $y = -2x + 5$? What is its initial value?

"I'm not certain, so I'm going to make a table of values.

x	$-2x + 5$
0	5
1	3
2	1
3	-1

From my table, the constant rate is -2 and the initial value is 5. I see they match the coefficient of the variable and the constant term."

Predicts the effect of changing the coefficient of the variable or the constant in a pattern rule

How is the graph of $y = x + 5$ the same as the graph of $y = -2x + 5$? How is it different?

"Both graphs are lines that pass through (0, 5). The graph of $y = x + 5$ slopes up to the right and is less steep than the graph of $y = -2x + 5$, which slopes down to the right."

Observations/Documentation