ALGEBRA 1 · HOMEWORK

Determine Which Function Type Represents Data

SCORE / 25

01 Part A · Practice

For equally spaced x-values: equal first differences → linear; equal second differences → quadratic; equal ratios → exponential.

1 ●○○ Does the table show a linear, exponential, or quadratic function? Explain.

x	0	1	2	3	4
y	7	13	25	43	67

2 ●○○ Find the first and second differences of the y-values. What type of function is it?

x	0	1	2	3	4
y	3	3	7	15	27

3 ●○○ Is $y = 6(0.5)^x$ linear, exponential, or quadratic?

4 ●○○ Find the ratio of each y-value to the one before it. Is the function exponential?

x	0	1	2	3	4
y	2	8	14	20	26

5 ●○○ Find the first and second differences of the y-values. What type of function is it?

x	0	1	2	3	4
y	10	8	6	4	2

6 ●○○ Is $y = -x^2 - 6x + 1$ linear, exponential, or quadratic?

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Preview - the full worksheet and its answer key are at primeworksheet.com