

Algebraic Reasoning

Name: _____

Per: _____

POINTS: _____

Homework #14 Quiz

Be sure to include your work when appropriate.

Use finite differences to determine if the data sets represent linear, exponential, quadratic, or other type of function.

1.

x	$y = f(x)$
1	-4
2	-1
3	2
4	5
5	8

Use the data set to generate a quadratic function that best models the data.

2.

x	$y = f(x)$
1	8.5
2	18
3	28.5
4	40
5	52.5

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For questions 3 and 4, use the following information.

WIDTH (FT)	LENGTH (FT)	AREA (SQ. FT.)
10	18	180
11	17	187
12	16	192
13	15	195
14	14	196
15	13	195
16	12	192

3. Use the data in the table to generate a quadratic function that models the data.

4. Use the data in the table to determine the dimensions that would create a pen with an area of 160 ft^2 .

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