

Algebraic Reasoning

Name: _____

Per: _____

POINTS: _____

Classwork #15 Quiz

Be sure to include your work when appropriate.

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

1.

x	$f(x)$
-1	-5
0	0
1	5
2	40
3	135
4	320

Write a cubic function for the values in the table.

2.

x	y
0	1
1	9
2	57
3	181
4	417
5	801

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For questions 3 and 4, use the following information.

WEIGHT OF PACKAGE, w (POUNDS)	PRICE TO MAIL PACKAGE, p (\$)
0	0
1	3.45
2	6.60
3	10.65
4	16.80
5	26.25

3. Write a cubic function to represent the given data.

4. Use your cubic function to determine the cost to mail a 6-pound package.

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