

# 9-6 Modeling Real-World Data

## Lesson Quiz

1. Use finite differences or ratios to determine which parent function would best model the given data set, and write a function that models the data.

Length (ft)	Cost (\$)
5	102.50
10	290.00
15	602.50
20	1040.00
25	1602.50

2. Write a function that models the given data.

Time (min)	Volume (cm <sup>2</sup> )
0	1.2
2	3.9
4	15.7
6	64.2
8	256.5
10	1023.8

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1. Use finite differences or ratios to determine which parent function would best model the given data set, and write a function that models the data. **quadratic;  $C(\ell) = 2.5x^2 + 40$**

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2. Write a function that models the given data.

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**$f(x) \approx 1.085(1.977)^x$**