Name _____ Date _____ Class _____

LESSON 1-2

Ready to Go On? Problem Solving Intervention

Introduction to Parent Functions

Parent functions can help you sketch a curve to approximate those values not in a data table.

The table lists the distance an object has fallen after a given number of seconds. Graph the relationship between distance and time and identify which parent function best describes this function. Then use the graph to estimate the distance the object will have fallen after 10 seconds.

Falling Object	
Time (s)	Distance (ft)
1	16
2	64
3	144
4	256
5	400

Understand the Problem

1. What information is shown in the table? _____

_____

2. What are the input values? _____

3. What are the output values? _____

Make a Plan

4. What variable should be plotted on the *x*-axis of the graph? _____

5. What variable should be plotted on the *y*-axis of the graph? _____

Solve

6. List five points to plot on the graph based on the information in the table.

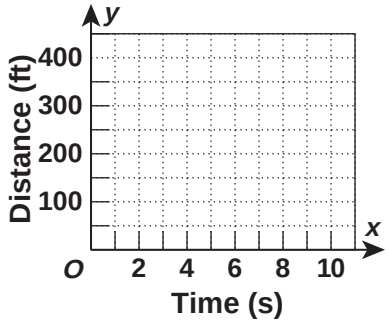
(1, 16); (2, _____); (_____, 144); (_____, _____); (_____, _____)

7. Graph the points you listed in Exercise 6. Draw a smooth curve through them.

8. What is the shape of the graph?

_____

What is the parent function? _____



9. Estimate the distance traveled by the object after 10 seconds. _____

Look Back

10. Extend the curve in the graph. Is it close to the estimate? _____