

**LESSON**  
**9.8**

# Practice C

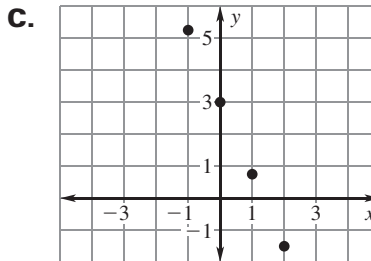
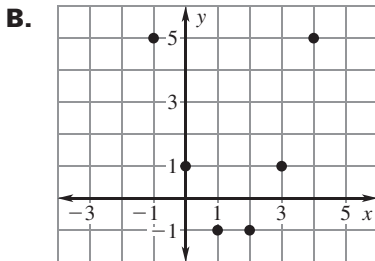
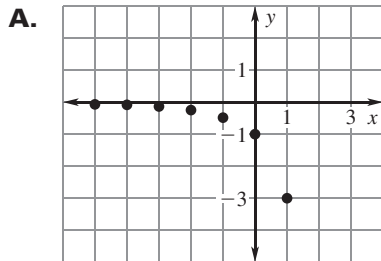
For use with the lesson "Compare Linear, Exponential, and Quadratic Models"

**Match the function with the graph it represents.**

1. Linear function

2. Exponential function

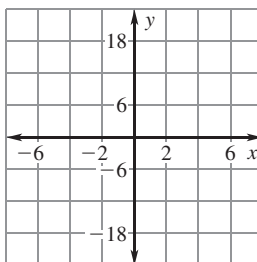
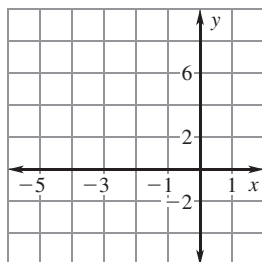
3. Quadratic function



**Use a graph to tell whether the ordered pairs represent a linear function, an exponential function, or a quadratic function.**

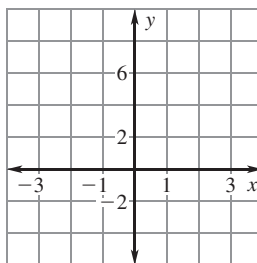
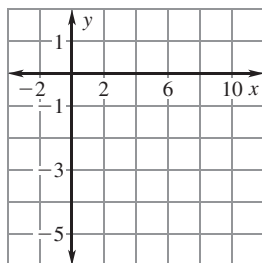
4.  $(-5, 5), (-3, -3), (-1, -3), (0, 0), (1, 5)$

5.  $(-4, -22), (-2, -12), (0, -2), (2, 8), (4, 18)$



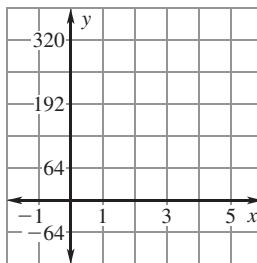
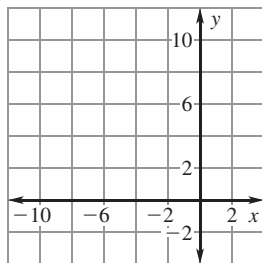
6.  $(0, -5), (2, -4.5), (4, -4), (6, -3.5), (8, -3)$

7.  $(-2, 8), (-1, 2), (0, \frac{1}{2}), (1, \frac{1}{8}), (2, \frac{1}{32})$



8.  $(-7, 7), (-6, 4), (-5, 3), (-4, 4), (-3, 7)$

9.  $(0, 1), (1, 4), (2, 16), (3, 64), (4, 256)$



LESSON  
9.8**Practice C** *continued*

For use with the lesson "Compare Linear, Exponential, and Quadratic Models"

Tell whether the table of values represents a **linear function**, an **exponential function**, or a **quadratic function**.

10.

<b>x</b>	0	1	2	3	4
<b>y</b>	2	2.1	2.2	2.3	2.4

11.

<b>x</b>	1	2	3	4	5
<b>y</b>	-6	-3	-2	-3	-6

12.

<b>x</b>	-4	-3	-2	-1	0
<b>y</b>	1296	216	36	6	1

13.

<b>x</b>	0	1	2	3	4
<b>y</b>	6	3	0	-3	-6

14.

<b>x</b>	-5	-4	-3	-2	-1
<b>y</b>	-4	-1	0	-1	-4

15.

<b>x</b>	-3	-2	-1	0	1
<b>y</b>	1024	128	16	2	$\frac{1}{4}$

16.

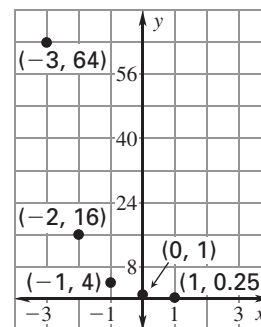
<b>x</b>	-3	-2	-1	0	1
<b>y</b>	15	11	7	3	-1

17.

<b>x</b>	2	3	4	5	6
<b>y</b>	2	-1	-2	-1	2

18. Use the graph shown.

- Which function does the graph represent, an *exponential function* or a *quadratic function*? Explain your reasoning.
- Make a table of values for the points on the graph. Then use differences or ratios to check your answer in part (a).
- Write an equation for the function that the table of values from part (b) represents.



19. **Printer Value** The value  $V$  of a printer between 1999 and 2003 is given in the table. Tell whether the data should be modeled by a *linear function*, an *exponential function*, or a *quadratic function*. Then write an equation for the function.

<b>Years since 1999, <math>t</math></b>	0	1	2	3	4
<b>Value, <math>V</math> (dollars)</b>	2000	1920	1840	1760	1680

20. **Interest** The balance  $B$  of an account is given in the table. Tell whether the data should be modeled by a *linear function*, an *exponential function*, or a *quadratic function*. Then write an equation for the function.

<b>Time, <math>t</math> (years)</b>	0	1	2	3	4
<b>Balance, <math>B</math> (dollars)</b>	1020.20	1040.60	1061.42	1082.64	1104.30