Name _____ Class _____ Date _____

9-7 Practice

Form K

Linear, Quadratic, and Exponential Models

Graph each set of points. Which model is most appropriate for each set?

1. (–3, –1), (–2, 0), (–1, 1), (0, 2), (1, 3)

2. (0, 3), (1, 1), (2, 0), (3, 1)

3. (–2, –0.25), (–1, –0.5), (0, –1), (1, –2)

4. (–4, 0), (–2, 2), (0, 3), (2, 2), (4, 0)

5. (–6, 6), (–4, 4), (–2, 2), (0, 0)

6. (–2, 0.25), (–1, 0.5), (0, 1), (1, 2)

Which type of function best models the data in each table? Use differences or ratios.

7.

x	*y*
0	0
1	–2
2	–8
3	–18
4	–32

8.

x	*y*
0	1
1	–3
2	–9
3	–27
4	–81

9. Which type of function best models the ordered pairs (–1, 1), (0, –2), (1, 1), and (2, 10)? Use differences or ratios.

10. Which type of function best models the ordered pairs (–1, 2.5), (0, 1), (1, –0.5), and (2, –2)? Use differences or ratios.

Name _____ Class _____ Date _____

9-7 Practice (continued) *Form K*

Linear, Quadratic, and Exponential Models

Which type of function best models the data in each table? Write an equation to model the data.

11.

x	y
0	–2
1	–4
2	–8
3	–16
4	–32

12.

x	y
0	–2
1	–5
2	–8
3	–11
4	–14

13.

x	y
0	1
1	1.5
2	3
3	5.5
4	9

14.

x	y
–2	12
–1	6
0	3
1	1.5
2	0.75

Which type of function best models the data in each ordered pair? Write an equation to model the data.

15. (–1, 4), (0, 5), (1, 4), (2, 1), (3, 24)

16. $(-2, -36), (-1, -12), (0, -4), (1, -\frac{4}{3}), (2, -\frac{4}{9})$

17. (0, –6), (4, –5), (6, –4.5), (8, –4), (12, –3)

18. (–1, –6), (0, –1), (2, –3), (3, –10), (4, –21)