Name _____ Class _____ Date _____

Practice 5-3

Function Rules, Tables, and Graphs

Model each rule with a table of values and a graph.

1. $f(x) = x + 1$

2. $f(x) = 2x$

3. $f(x) = 3x - 2$

4. $f(x) = \frac{3}{2}x - 2$

5. $f(x) = \frac{1}{2}x$

6. $f(x) = -\frac{2}{3}x + 1$

7. $f(x) = x^2 + 1$

8. $f(x) = -x^2 + 2$

9. $f(x) = x - 3$

10. Suppose a van gets 22 mi/gal. The distance traveled $D(g)$ is a function of the gallons of gas used.

a. Use the rule $D(g) = 22g$ to make a table of values and then a graph.

b. How far did the van travel if it used 10.5 gallons of gas?

c. Should the points of the graph be connected by a line? Explain.

11. The admission to a fairgrounds is \$3.00 per vehicle plus \$.50 per passenger. The total admission is a function of the number of passengers.

a. Use the rule $T(n) = 3 + 0.50n$ to make a table of values and then a graph.

b. What is the admission for a car with six people in it?

c. Should the points of the graph be connected by a line? Explain.

Graph each function.

12. $f(x) = 4x + 2$

13. $f(x) = |-2x|$

14. $f(x) = -3x + 7$

15. $f(x) = -|x| - 1$

16. $f(x) = 8 - \frac{3}{4}x$

17. $f(x) = \frac{2}{3}x - 7$

18. $f(x) = -\frac{2}{3}x + 6$

19. $f(x) = x^2 - 2x + 1$

20. $f(x) = -\frac{1}{2}x + 3$

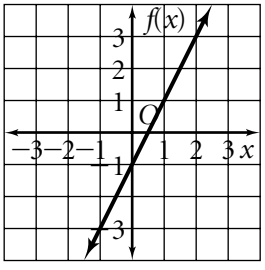
21. $y = -x^2 + 1$

22. $y = 9 - x^2$

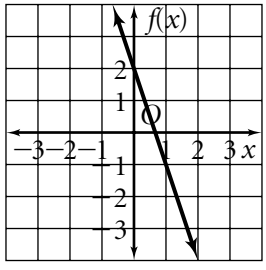
23. $y = 2x^2 + x - 2$

Make a table of values for each graph.

24.



25.



26.