

4-4

Practice

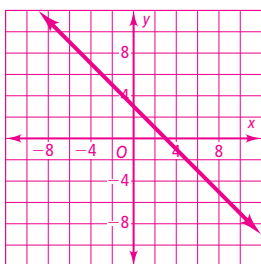
Form K

Graphing a Function Rule

Make a table of values for each function. Then graph each function rule.

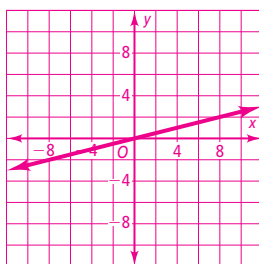
1. $y = -x + 3$

x	y
0	3
1	2
2	1
3	0



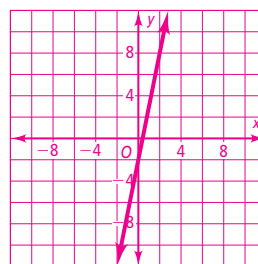
2. $y = \frac{1}{4}x$

x	y
-4	-1
0	0
4	1
8	2



3. $y = 5x - 2$

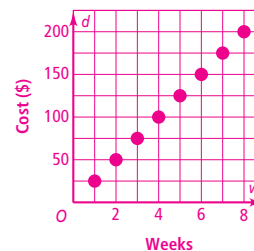
x	y
0	-2
1	3
2	8
3	13



Graph each function rule. Explain your choice of intervals on the axes of the graph. Tell whether the graph is *continuous* or *discrete*.

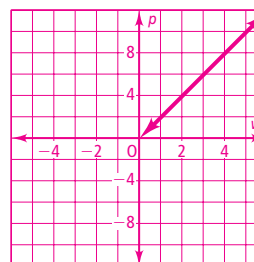
4. The cost d , in dollars, for a parking pass depends on the number of whole weeks w you purchase. This situation is represented by the function rule $d = 25w$.

The w -axis interval is 1 because the cost is per 1 week, and the d -axis interval is 25 because that is the cost increment per week. The function is discrete.



5. The price p , in dollars, for apples depends on the weight w , in pounds, of the apples. This situation is represented by the function rule $p = 1.99w$.

The w -axis interval is 1 because the cost is per 1 pound, and the p -axis interval is 2 because the cost per pound is in increments that are very close to \$2 per pound; The function is continuous.



4-4

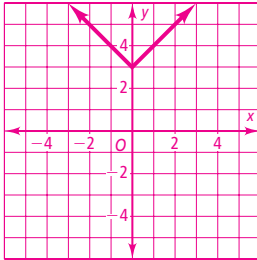
Practice (continued)

Form K

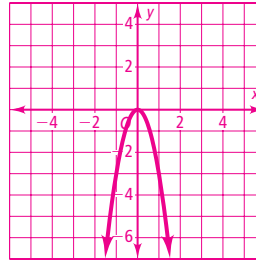
Graphing a Function Rule

Graph each function rule.

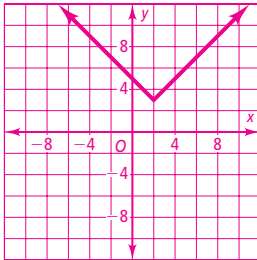
6. $y = |x| + 3$



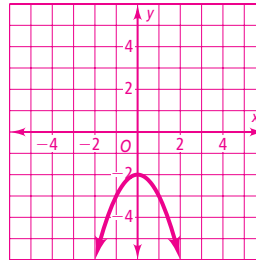
7. $y = -3x^2$



8. $y = |x - 2| + 3$

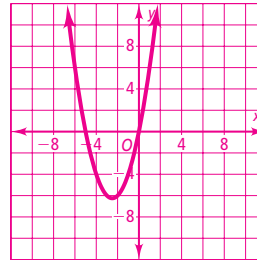


9. $y = -x^2 - 2$



10. **Open-Ended** Sketch a graph of a quadratic function. Write the function rule that you graphed.

Answers may vary. Sample: $y = x^2 + 5x$



11. **Writing** Describe the general shape of the function $y = |x|$.

The general shape of an absolute value function looks like a "V".