

Name: _____

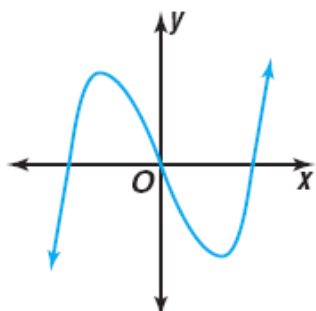
Relations & Linear Functions

Exercise 1: Determine whether each relation is a function.

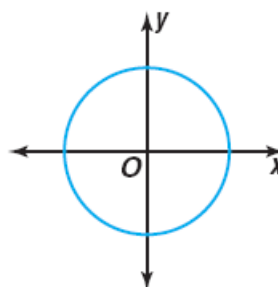
- 1) $\{(3, 5), (4, 3), (-2, 1), (-1, 4)\}$
- 2) $\{(-2, 3), (-3, 2), (5, 2), (7, 2)\}$
- 3) $\{(2, -3), (3, -2), (5, -2), (2, -5)\}$
- 4) $\{(0, 2), (-1, 3), (2, 3), (-1, 2)\}$
- 5) $\{(-3, 5), (-2, 4), (-3, 6), (-2, 3)\}$
- 6) $\{(1, 2), (2, 1), (-1, 2), (-2, 1)\}$

Exercise 2: Use the vertical line test to determine whether each relation is a function.

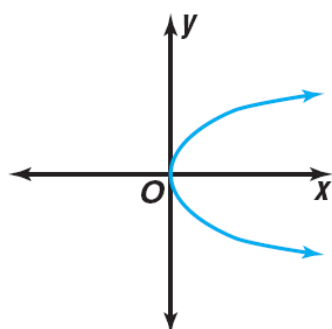
1)



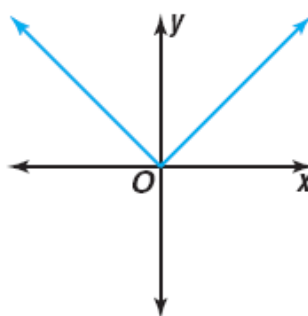
2)



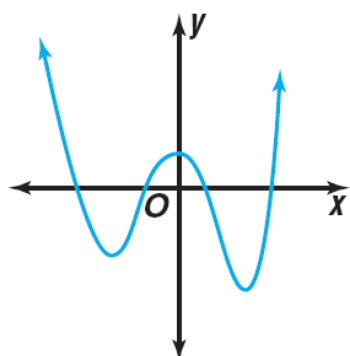
3)



4)



5)



Exercise 3: Determine whether each equation is a linear equation. Explain. If an equation is linear, identify A, B, and C.

1) $xy=3$

2) $3y+4x=8$

3) $y=x$

4) $2x=5$

5) $4x=8y$

6) $X+3xy=5$

7) $3y=11$

8) $y=5x+2$

9) $4x+x+y=0$

10) $2x+5y=12$

11) $y^2 = 4x$

12) $2-3x=8$

13) $4=x+y$

14) $y = x^2 - 9$

15) $6+2xy=3$