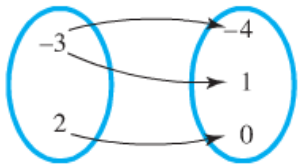
3.5 In-class Practice Math 085

1. Decide whether each relation defines a function, and give the domain and range.

a) $\{(0,2),(2,4),(4,6)\}$

b) $\{(9,-2),(-3,5),(9,2)\}$

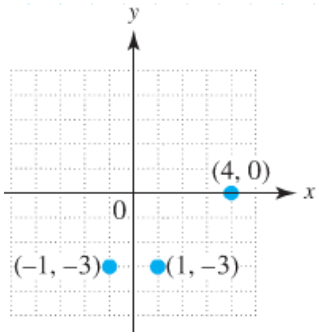
c)



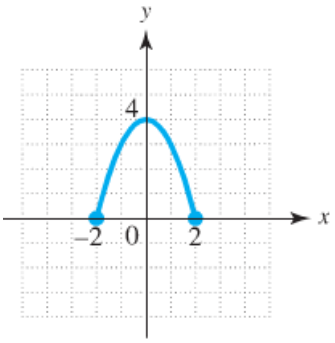
d)

x	y
4	−3
2	−3
0	−3
−2	−3

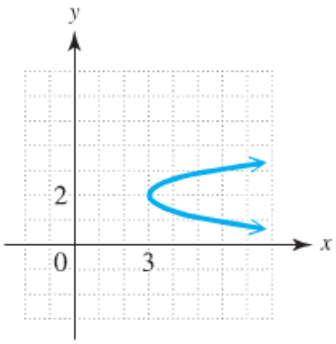
e)



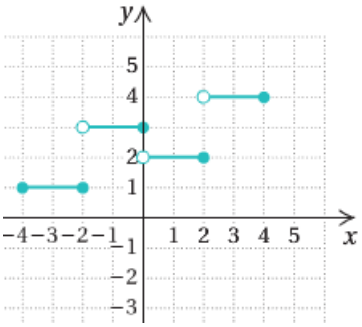
f)



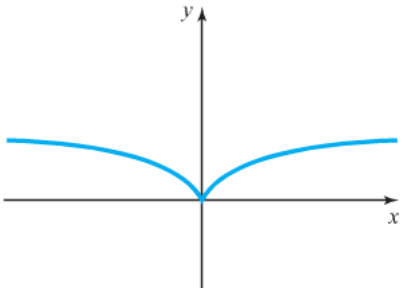
g)



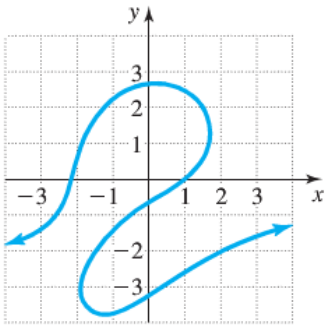
h)



i)



j)



2. Decide whether each relation defines y as a function of x. Give the domain and range.

a) $x = y^6$ b) $x = y^4 + 1$ c) $x + y < 4$

d) $y = -2x + 1$ e) $y = \sqrt{4x + 2}$ f) $y = -\frac{6}{x}$

g) $x^2 + y^2 = 9$ h) $|x| = |2y|$ i) $x - 2 = |y|$

3. Consider $y = x + 2$ and $y > x + 2$. Explain why one of these relations is a function and the other is not.

4. Consider the graphs of $y = 2$ and $x = 3$. Explain why one of these relations is a function and the other is not.