

2.1 Relations and Functions

NAME _____ DATE _____ Class _____

A) State the domain and range of each relation. Then determine whether each relation is a *function*. If it is a function, determine if it is *one-to-one*, *onto*, *both*, or *neither*.

1. $\{(0.5, 3), (0.4, 2), (3.1, 1), (0.4, 0)\}$

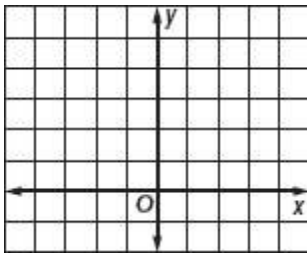
2. $\{(-5, 2), (4, -2), (3, -11), (-7, 2)\}$

3. $\{(0.5, -3), (0.1, 12), (6, 8)\}$

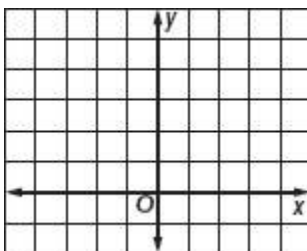
4. $\{(-15, 12), (-14, 11), (-13, 10), (-12, 12)\}$

B) Graph each relation or equation and determine the domain and range. Determine whether the relation is a *function*, is *one-to-one*, *onto*, *both*, or *neither*. Then state whether it is *discrete* or *continuous*.

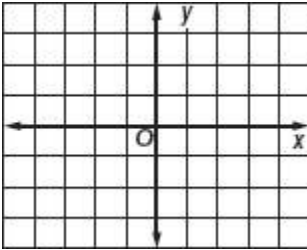
1. $y = 3$



2. $y = x^2 - 1$



3. $y = 3x + 2$



C) Find each value if $f(x) = -2x + 4$.

3. $f(12)$

4. $f(6)$

5. $f(2b)$

D) Find each value if $g(x) = x^3 - x$.

1. $g(5)$

2. $g(-2)$

3. $g(7c)$