1.3 Introduction to Functions

- A relation in which each $x$-coordinate is matched with only one $y$-coordinate is said to describe $y$ as a function of $x$.
  
  - The set of $x$-coordinates of the points on the function is known as the Domain of the function
  - The set of $y$-coordinates of the points on the function is known as the Range of the function

- Determining if a relation is a function from graph.
- Determining if a relation is a function from an equation.

Examples: Determine if the following are the graphs of functions or not.

1. 

2. 

3.
Examples: Determine whether or not the equation represents $y$ as a function of $x$.

(a) $y^2 = x^2 + 4y$
(b) $x^2 + y^3 = 1$
(c) $\frac{2x - 1}{y} = \frac{x}{7}$