

# Representing Functions

You can represent a function  $F : X \rightarrow Y$  with a set of ordered pairs:

- ▶  $\{(x, y) \mid y = f(x), x \in X, y \in Y\}$

Similarly, you can draw this as a directed bipartite graph  $(X, Y)$  with directed edges  $x \rightarrow y$  for each  $x \in X, y \in Y$  such that  $y = f(x)$ .