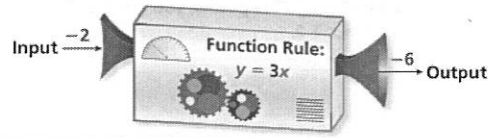## 6.2 Representations of Functions

Key Idea

Functions as Equations

A **function rule** is an equation that describes the relationship between inputs (independent variable) and outputs (dependent variable).

EXAMPLE 1 – Writing Function Rules

A. Write a function rule for "The output is five less than the input."

B. Write a function rule for "The output is half of the input."

C. Write a function rule for "The output is eight more than the input."

D. Write a function rule for "The output is 5 less than 2 times the input."

EXAMPLE 2 – Evaluating Functions
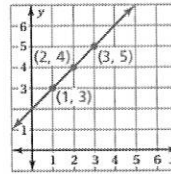Find the value of y when $x = 5$.

A. $y = 4x - 1$ 　　　　 **B.** $y = 10x$ 　　　　 **C.** $y = 7 - 3x$

EXAMPLE 3 – Graphing a Function

Graph the function $y = -x - 3$ using inputs of $-1, 0, 1$ and 2.

x	y
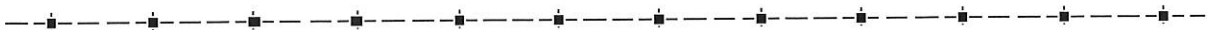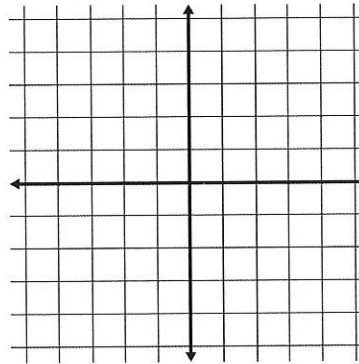
SUMMARY – Representations of Functions

Words: An output is 2 more than the input.

Equation: _____

Table   **Mapping**   **Graph**