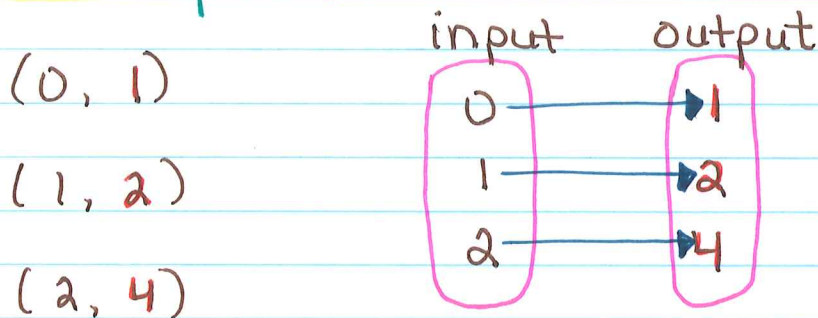


6.1 Relations and Functions p. 244

Ordered pairs are examples of **inputs** and **outputs**.

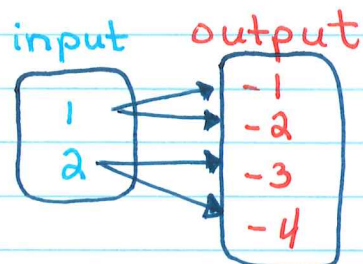
The **x's** are the **inputs** and the **y's** are the **outputs**.

A **relation** pairs inputs w/ outputs and can be represented by a **mapping diagram** or **ordered pairs**.



example: List the ordered pairs shown in the mapping diagram.

(1, -1), (1, -2), (2, -3), (2, -4)



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A relation that pairs each input with **exactly one output** is a **function**.

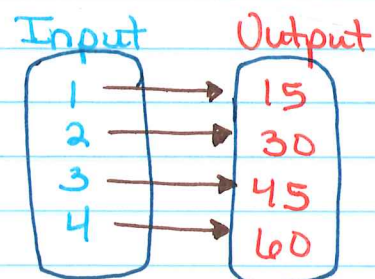
(i.e. an x value cannot have 2 different y values)

function: (-9, 0) (-2, 5) (5, 10) (12, 10)

not a function: (-2, 4) (-1, 3) (1, 5) (1, 6)

(i.e. two points cannot be on the same vertical line)

Describe the Mapping Diagram



As each input increases by 1, each output increases by 15