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Relations & Functions

Relation → a comparison between two variables (x and y)
ex: age and height
time and speed
study time and grades

Function → a special type of relationship between two variables (x and y)
☆ one input (x value) for each output (y values)

X DOES NOT REPEAT

Different Representations:
① Function Rule → a specific type of equation that is a function. ex) $y = 2x + 6$
② Function Table → a set of values of a function
③ Graph → does not have to be linear but must pass the vertical line test

Function Notation → a special notation to indicate a functional relationship

y is a function of x $\xrightarrow{\text{then}}$ $y = f(x)$ (output)

ex) $C(50) = 20$ $\xrightarrow{\text{means}}$ when the input is 50, the output is 20.

Independent Variable → a variable representing the input values of a function (x values)

Dependent Variable → a variable representing the output values of a function (y values)