Notes: Variables and Patterns
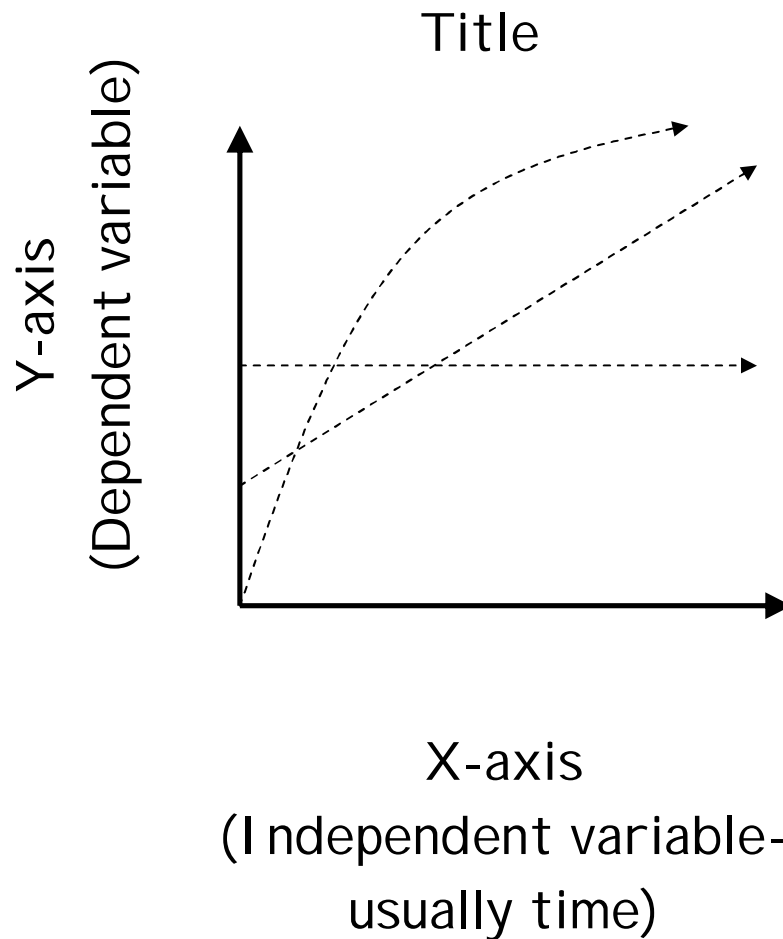
¶Variable: A quantity that changes or varies. It can be represented by a number, letter, or symbol.

¶Coordinate Graph: It is a way to show the relationship between two variables.

Title

Y-axis (Dependent variable)

X-axis
(Independent variable-
usually time)

¶4-steps to making a coordinate graph
- J Select your two variables.
- J Select an axis to represent each variable.
- J Select a scale for each axis.
- J Plot the data points.

¶ Selecting an axis: The independent variable (usually time) goes on the x-axis, the dependent variable goes on the y-axis. Do not forget to label axis.

¶ Dependent vs. Independent variable: A dependent variable depends on an independent variable. Examples: The cost (dependent variable) of a long distance phone call depends on how long (independent variable) you talk. *For a bike tour, the number of people (I.V.) who register to go determines the cost (D.V.) for renting bikes.*

¶ Determining the scale: Determine the largest and smallest values you want to show on your graph, and then decide how you want to space them. Try to have about 10 values listed on both the x and y-axis.

¶ Plotting data points: Data points are listed (x,y). That means the first number is plotted on the x-axis and the second number is on the y-axis. Find the intersection of the two numbers and plot the point.

¶ Tables: A table has either 2 columns or 2 rows.

X (time)	1	2	3	4
Y (distance)	5	10	15	20

X (people)	Y (Cost to rent each bike)
10	25
20	20
30	18