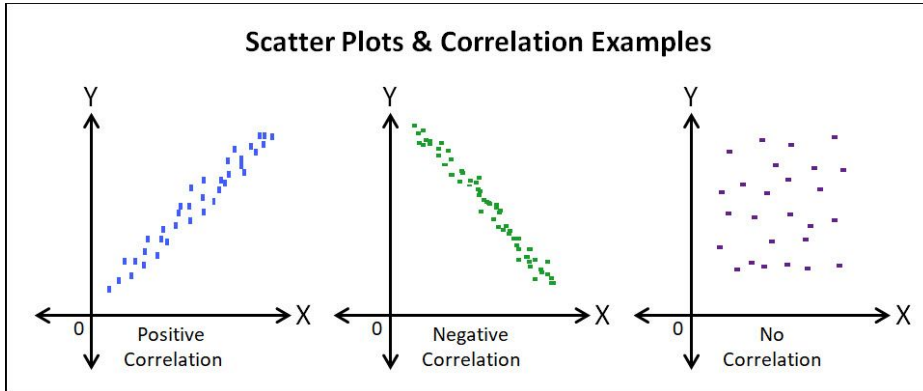


1B: I CAN represent data in two variables on a scatter plot, and describe the relationship between the variables using the slope, intercept, and correlation coefficient of a line of best fit.

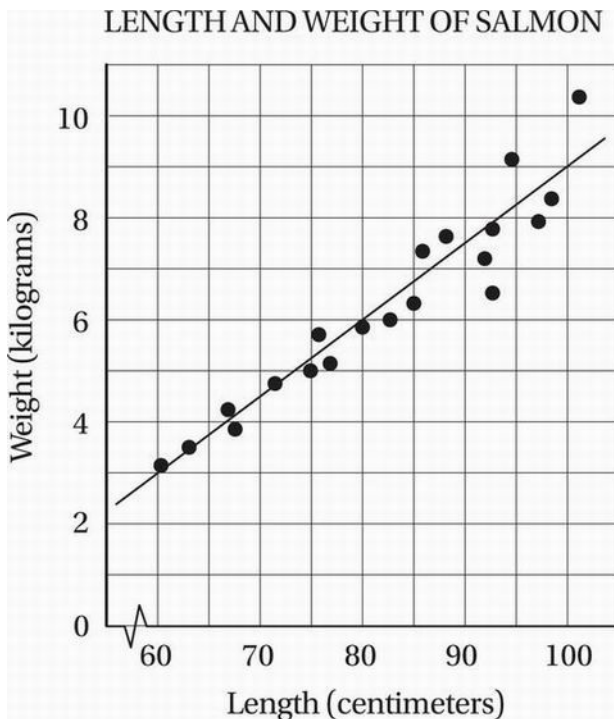
A scatter plot shows data in TWO variables.

Scatter plots can have positive, negative, or no correlation:



A line of best fit show the linear relationship between the variables in a scatter plot.

Example:



The y-intercept is where the line of best fit crosses the y-axis. In this example, it's when the length of the salmon is 0cm.

This example says at 0cm, the salmon would weigh 2lbs. This does not make sense in the real world, but it's what the data shows.

The slope is how much one variable increases as the other one increases by one. In this example, as the fish gains 10 centimeters, it gains 2lbs. So the slope is $2/10$, or $1/5$ th pound per centimeter. That means, as a fish gains 1 centimeter, it will gain $1/5$ th of a pound.