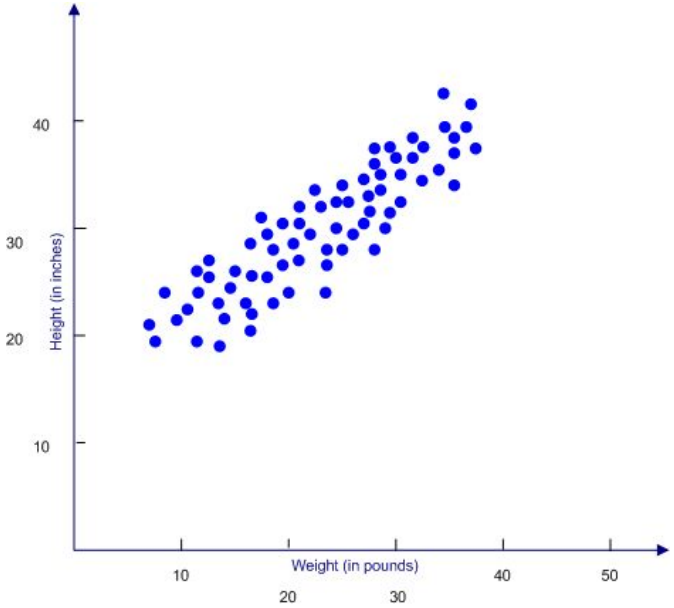
# Introduction to Linear Regression

# Warm Up

Given the following data on the height and weight of different babies, can you predict the weight of a 30lb baby?

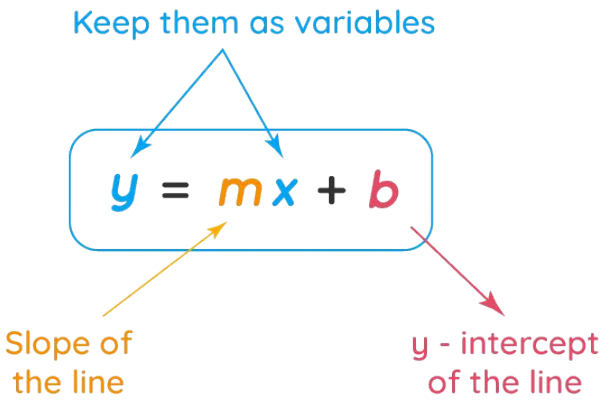


# Linear Regression Notes

- Linear Regression is, in its simplest form, using a line of best-fit to make predictions about a dataset.
- This requires us to understand the different parts of the equation for a line

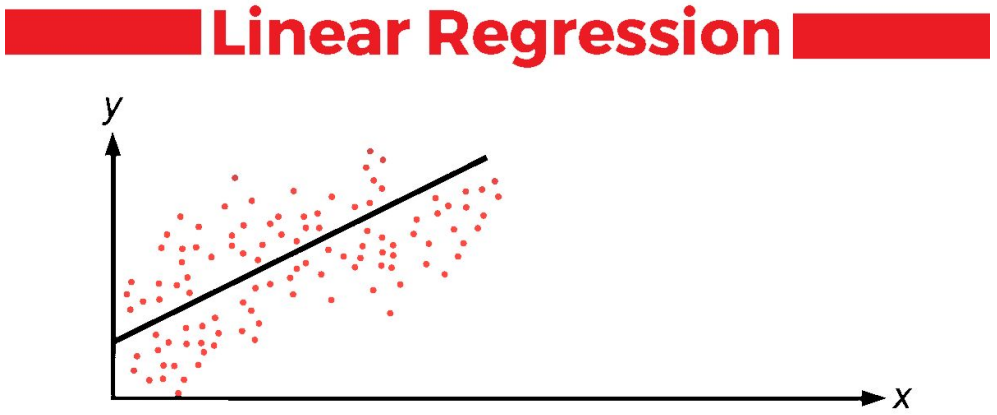
$$y = mx + b$$

- The slope represents the increase in our target compared to a single unit increase in our predictor.
- The y-intercept represents the value of our target when the predictor is zero.



# Your Turn

- You will receive two datasets in Google Sheets (Fish Data and Car Data).
- Filter the columns so that only your predictor and target are changing.
- Use Google Sheets to create a line of best-fit for the dataset.
- Predict the target value for a predictor value with noe data.



# Exit Ticket

What limitations do you think exist when using linear regression for our warm up question? Explain your response.