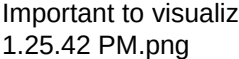# 1 | **Types of ML**

- Supervised

    - Linear regression
        * Good for predicting the outcome of independent variables
        * We are trying to find a line – `y=mx+b`
        * What about with more features?
            · Just add dimensions
            · Not as visual, but math is the same
        * Helps to relate variables
        * Not good for:
            · What type of tree is x based upon height and width?
            · Not a numeric output
            · Can't just assign numbers to words, as 0-1-2 is related to each other; say, model says its a combo of 1 and 2, comes out to a 1, which DOESN'T work. (idk why that auto capitalized)
        * Very fast and simple, which makes output easy to understand
        * `=Assumes linear relation between incomes and outputs=`
            · Important to visualize our data even after we run out model Screen Shot 2020-08-26 at 1.25.42 PM.png
            · These all have the same best fit line, the same x mean, y mean, x y standard dev, and a bunch more

- Unsupervised

- Semi-Supervised

2 | **Used for:**

- Classification

- Clustering

    - Find related data points

- Regression

- Translation

- Anomaly Detection

    - KBPoker$_{\text{WithWes}}$ Poker Story

- Generation

3 | **Important terms:**

Weights Labels