Regression

→ Regression is a statistical method to determine the relationship between one dependent variable (also called the target or output) and one or more independent variables (also called features or inputs).

→ The main goal is to predict the value of dependent variable based on the values of the independent variables.

→ Output is a real number
  X not like classification.

Why real number? ⇒ Real number allow for precise prediction. instead of predicting house price as cheap or expensive, it provides exact numbers like $250,000.
Continous nature → Prices, weights, heights don't jump from one value to another but vary smoothly.

Summary → Regression is a method to find relationships between variables.

it's not about about giving a right or wrong ans
it is about giving mathematically backed best estimate.

Linear regression: if straight line represents data appropriately.

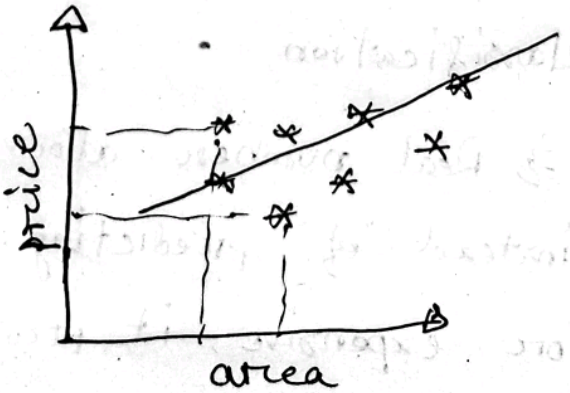
Why use Regression?

1. Predictive Power: Helps in making prediction based on data.

2. Insight into relationship: Provide insight on how different variables are related to each oth

3. Basis for decision-making. { For instance, how changes in one variable like (house size) affect another variable like (house price) }

(A) For an area which is not included in dataset what will be the price of it?



independent area(m^2)	dependent Price
100	30L
120	32L
200	45L