Day: M T W T F S

Date: ___/___/20___

"Linear Regression"

Mathematical form.

Project : Predicting Pizza Prices

Step 1 → Data collection

Step 2 → Calculation

Step 3 → Prediction

Step 4 → Visualization

Diameter in Inches(x)	Prices in(Y) Dollars	Mean(X)	Mean (Y)
8	10	10	13
10	13		
12	16		
30	$30/3 \Rightarrow 10$		

Deviation(X)	Deviation(Y)	Product of Deviation	Sum of Product of Deviation
-2	-3	6	
0	0	0	12
2	3	6	

Square of Deviation (x)	
4	
0	
4	

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calculate = m = slope = $\frac{\text{sum of product of deviation}}{\text{sum of sq of deviation for x}}$

$= \frac{12}{8} \Rightarrow 1.5$

Calculate = b = Mean of y - (m * mean of x)

$= y = mx + b$

$= 13 - (1.5 \times 10)$

$= 13 - 15$

$= -2$