ROOT MEAN SQUARE ERROR

Root Mean Square Error

- (RMSE) is the standard deviation of the residuals (prediction errors).

- Residuals are a measure of how far from the regression line data points are.

- RMSE is a measure of how spread out these residuals are. In other words, it tells you how concentrated the data is around the line of best fit.

- Root mean square error is commonly used in climatology, forecasting, and
- regression analysis to verify experimental results.

RMSE

- Squaring the residuals.
- Finding the average of the residuals.
- Taking the square root of the result.

Height (X)	Weight (Y)	Estimated (Y')	Error (Y-Y')	Error Squared
43	41	43.6	-2.6	6.76
44	45	44.4	0.6	0.36
45	49	45.2	3.8	14.44
46	47	46	1	1
47	44	46.8	-2.8	7.84
Regression line = y=9.2+0.8x				

Step 5: Add all of the squared errors up:

6.76 + 0.36 + 14.44 + 1 + 7.84 = 30.4

Step 6: Find the mean squared error:

30.4 / 5 = 6.08

Step 7: Root mean Squared error:

√60.8 = 7.7974354758472