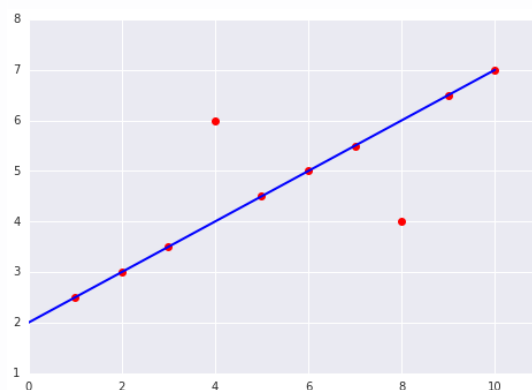
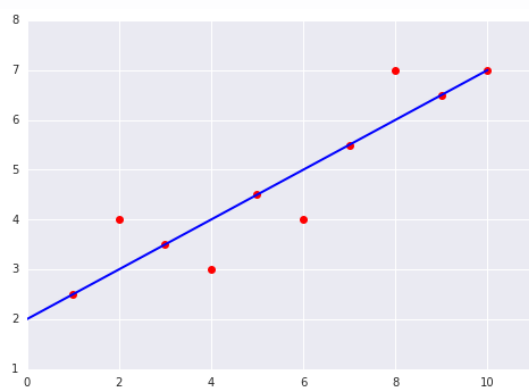


# Descending into ML: Check Your Understanding

Estimated Time: 5 minutes

## Mean Squared Error

Consider the following two plots:



Explore the options below.

Which of the two data sets shown in the preceding plots has the **higher** Mean Squared Error (MSE)?

The dataset on the right.



The eight examples on the line incur a total loss of 0. However, although only two points lay off the line, both of those points are *twice* as far off the line as the outlier points in the left figure. Squared loss amplifies those differences, so an offset of two incurs a loss four times as great as an offset of one.

$$MSE = \frac{0^2 + 0^2 + 0^2 + 2^2 + 0^2 + 0^2 + 0^2 + 2^2 + 0^2 + 0^2}{10} = 0.8$$

Correct answer.

The dataset on the left.



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