Math 240 — Hw 7

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Consider a small dataset with the following points:

x	y
1	2
2	3
3	5
4	4

We want to fit a linear model $y = mx + b$ to this data using gradient descent.

1. Identify a good set of initial parameters for your model.
2. Compute the mean absolute error of your initial parameters:

$$E(m, b) = \frac{1}{n} \sum_{i=1}^{n} |y_i - (mx_i + b)|$$

3. Make one adjustment to m and b using the derivative of E with respect to m and b. What is your updated model?
4. compute the mean absolute error of your updated model.