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Iteration 3.

$$m = 1.26 \quad b = 1.9$$

$$y_1 = (1.26)1 + 1.9 = 3.16$$

$$y_2 = (1.26)3 + 1.9 = 5.68$$

Gradients.

$$\delta S / \delta m = -2/2 (3 - 3.16)1 + (6 - 5.68)3 = -0.8 \quad m = -0.8$$

$$\delta S / \delta b = -2/2 (3 - 3.16) + (6 - 5.68) = -0.16 \quad b = -0.16$$

$m_{\text{new}(3)}$ & $b_{\text{new}(3)}$

$$m_{\text{new}(3)} = 1.26 - 0.1 \times (-0.8) = 1.34$$

$$b_{\text{new}(3)} = 1.9 - 0.1 \times (-0.16) = 1.916$$