Iteration 2

$m = 1.7$, $b = 2.1$

$\hat{y}_1 = m_{new} x_1 + b_{new}$
$\quad = (1.7)1 + 2.1$
$\quad = 3.8$

$\hat{y}_2 = m_{new} x_2 + b_{new}$
$\quad = (1.7)3 + 2.1$
$\quad = 7.2$

Gradients

$\partial J / \partial m = -\frac{2}{2}(3 - 3.8)1 + (6 - 7.2)3$
$\quad = 4.4$

$\partial J / \partial b = -\frac{2}{2}(3 \cdot 3.8) + (6 - 7.2)$
$\quad = 2$

$m_{new} = 1.7 - 0.1 \times 4.4 = 1.26$
$b_{new} = 2.1 - 0.1 \times 2 = 1.9$
$m_{new(2)} = 1.26$
$b_{new(2)} = 1.9$