1. Let us consider the training data to be

$$f(x_i, w_i) = \{ (x_i, w_i), i = 1 \ldots N \}$$

Here
x_i = Row
w_i = Height 'H'

Considering training Parameters to be ϕ_0, ϕ_1 we can use the maximum likelyhood estimation & considering further that the data pairs are independent & identically distributed, the equation is.

$$P(w_i | x_i, \Theta) = \prod_{i=1}^{N} \frac{1}{\sqrt{2\pi\sigma^2}} \exp\left\{ \frac{-1}{2} \frac{(w_i - (\phi_0 + \phi_1 x_i))^2}{\sigma^2} \right\}$$

Here the learning parameters $\Theta = \{ \phi_0, \phi_1, \sigma^2 \}$

2. To derive the values of $\{ \phi_0, \phi_1, \sigma^2 \}$

let

$$L = \frac{1}{\sqrt{2\pi\sigma^2}} \exp\left\{ \frac{-1}{2} \frac{(w_i - (\phi_0 + \phi_1 x_i))^2}{\sigma^2} \right\}$$

as we need to consider derivatives, converting it to logarithmic terms would be easier.

$$\therefore L = \operatorname{argmax} \left[\sum_{i=1}^{N} \left(\frac{-1}{2} \left[N(\log 2\pi) + N \log(\sigma^2) + \sum_{i=1}^{N} \frac{(w_i - (\phi_0 + \phi_1 x_i))^2}{\sigma^2} \right] \right) \right]$$

Hence taking the derivative of L wrt ϕ_0, ϕ_1 & σ^2 we will find the values.