

1. What is the expected height when $x_i = \bar{x}$?
2. What is the expected height when x_i changes by 1 unit?

1) Expected height when $x_i = \bar{x}$

Since $x_i - \bar{x} = 0$, it follows that

$$\mu_i = \alpha,$$

which can be interpreted as height of a person who has average weight.

2) If x_i increases by one unit, the weight is $1kg$ above the average weight, and the expected height changes by βcm , which means an increase or decrease depending on the sign of β (in our case, $\beta > 0$).

In general one could say that for two people that differ in weight by $1kg$, the expected height difference is βkg .