

$$y_i - N b_0 - b_1 x_i = 0$$

$$b_0 = \frac{y_i - b_1 x_i}{N}$$

$$(xy)_i - b_0 x_i - b_1 (x_i^2) = 0$$

$$(xy)_i - \frac{(y_i - b_1 x_i) x_i}{N} - b_1 x_i = 0$$

$$N(xy)_i - x_i y_i + b_1 (x_i)^2 - b_1 x_i = 0$$

$$N(xy)_i - x_i y_i + b_1 [(x_i)^2 - x_i] = 0$$

$$b_1 = \frac{x_i y_i - N(xy)_i}{(x_i)^2 - x_i}$$

