3. $\bar{x} = \frac{1}{9}\sum_{i=1}^{9} x_i = 26$

$\sum_{i=1}^{9} x_i^2 = 10144$

$\bar{y} = \frac{1}{9}\sum_{i=1}^{9} y_i = 90.14$

$\sum_{i=1}^{9} y_i^2 = 76218.19$

$\sum_{i=1}^{9} x_i y_i = 24628.6$

$\hat{b} = \frac{\sum x_i y_i - n\bar{x}\bar{y}}{\sum x_i^2 - n\bar{x}^2} = 0.87$

$\hat{a} = \bar{y} - \hat{b}\bar{x} = 67.5$

$\hat{\sigma}^2 = \frac{1}{7}\sum (y_i - \bar{y})^2 - \hat{b}^2 \times \frac{1}{7}\sum (x_i - \bar{x})^2 = 2.145$