A12

Sunday, 3. November 2019 16:45

$$y(x) = a + b \cdot X$$

$$VAR = E(X^2) - E(X)^2$$

$$E(X_{LT}) = a + b \cdot E(x)$$

$$E(X_{LT}^2) = a + b \cdot E(x^2)$$

$$E(X_{LT})^2 = (a + b \cdot E(x))^2 = a^2 + 2b E(x) + b^2 \cdot E(x)^2$$

$$VAR(X_{LT}) = 2 \cdot E(x^2) - (4\ E(x) + 4 \cdot E(x)^2)$$

$$VAR(Y_{LT}) = 3 \cdot E(y^2) - (6 \cdot E(y) + 9 \cdot E(y)^2)$$

$$VAR(X_{LT}) = 10 + E(x) - (100 + 2E(x) + E(x)^2)$$

$$VAR(y_{LT}) = 20 + E(y) - (400 + 2E(y) + E(y)^2)$$