

ASSIGNMENT#2

Ex 4.44:

$$\sigma_x^2 = 0.535$$

$$\sigma_x = 0.732$$

$$\sigma_y^2 = 0.429$$

$$\sigma_y = 0.655$$

$$\sigma_{xy} = -0.214$$

$$\rho_{xy} = -0.4472$$

Ex 4.45:

$$\sigma_x = 0.6689$$

$$\sigma_y = 1.4$$

$$\sigma_{xy} = 0.01$$

$$\rho_{xy} = 0.01067$$

Ex 4.46:

$$G(x) = k(20x^2 + \frac{98000}{3})$$

$$H(y) = k(6y^2 + \frac{25000}{3} - 9000 - 30y^2)$$

$$\mu_x = 40.81 \quad \mu_y = 40.81$$

$$\sigma_{xy} = -0.6642$$

Ex 4.47:

$$H(y) = \frac{2}{3}(\frac{1}{2} + 2y) \quad G(x) = \frac{2}{3}(1 + x)$$

$$\mu_x = \frac{5}{9}$$

$$\mu_y = \frac{11}{18}$$

$$\sigma_x = 0.283$$

$$\sigma_y = 0.2664$$

$$\sigma_{xy} = \frac{-1}{162}$$

$$\rho_{xy} = -0.0818$$