

- 1a. Problem 3.4.13
- b. Problem 3.5.3
- c. Problem 3.5.9

- 2a. Problem 3.6.6
- b. Problem 3.6.11

3a Let X_1 and X_2 be independent random variables with pdf's $f_1(x_1) = 2x_1$, $0 < x_1 < 1$ and $f_2(x_2) = 4x_2^3$, $0 < x_2 < 1$. Find $P(0.4 < X_1 < .8 \cap 0.4 < X_2 < 1)$

- b. Problem 4.1.12

4.a The quantity $\frac{\rho\sigma_Y}{\sigma_X}$ is the minimum of what least squares problem? Show work.

- b. Problem 4.2.8