# Homework 08_8 (Due: 5/7)

1. Text Problem 5.5.3.
2. Text Problem 5.6.6.
3. Text Problem 5.7.4.
4. Two Gaussian random variables $X$ and $Y$ have a correlation coefficient $\rho = 0.25$. The standard deviation of $X$ is 1.9. A linear transformation (coordinate rotation of $\frac{\pi}{6}$) is known to transform $X$ and $Y$ to new random variables that are statistically independent. What is $\sigma_Y^2$?
5. Text Problem 5.8.4.