

5. Let X_1 be a random variable having a normal distribution with mean 12 and variance 9. Also, let X_2 be a random variable having a normal distribution with mean 14 and variance 16. X_1 and X_2 are independent random variables. Calculate the probability that $X_2 > X_1$. [Hint: Think of the difference $D = X_1 - X_2$, and as a first step find its mean and variance] [12]