Quiz 04

Instructions: *Answer the questions with precise definitions. Your definitions definitions should either be stated exactly as in the lecture or textbook, or be clearly equivalent to them. Having the "right idea" but not a precise formulation will not recieve credit.*

Problem 1. What does it mean for random variables $X_1, \ldots, X_n$ to be ***independent***?

Problem 2. Let X be a random variable. What is the ***variance*** of X?