EE 381 Homework 2 - Part 1

Name, I.D. #, and Date: _____

Instructions: Attempt each problem. Submit this part of homework 2 with additional parts of homework 2 on 2/21/18 before homework review.

1.) A fair coin is to be tossed until a head comes up for the first time. What are the chances of that happening on an odd numbered toss?

2.) If $P(A) = \frac{1}{3}, P(B) = \frac{1}{2}$, and $P(A \cup B) = \frac{3}{4}$ what is the probability of

(a) $P(A \cap B)$

(b) $P(A' \cup B')$

(c) $P(A' \cap B)$

3.) An urn contains 4 blue chips and 3 green chips. Three random chips are removed simultaneously. Let X be the r.v. representing the number of blue chips in the sample. Construct a graph of the cumulative distribution function for the r.v. X.