ECE 341 - Homework #1

Tree Diagrams and Enumeration. Due Wednesday, May 20th

Please make the subject "ECE 341 HW#1" if submitting homework electronically to Jacob_Glower@yahoo.com (or on blackboard)

1) Two teams, A and B, are playing a best of 5 game series. (The series is over once one team wins 3 games). The probability of A winning any given game is 0.6. Draw the tree diagram for all possible outcomes of the series.

2) List all possible combinations of rolling a 4-sided die (d4) and a 6-sided die (d6) (enumaration).

Also determine the probability X {1..6} where X is the largest of the two numbers.

Two players, A and B, are playing a game of dice.
   •   Player A rolls a d4 and a d6 and takes the largest of the two numbers (i.e. problem #2)
   •   Player B rolls a 6-sided die and adds one to the total.
Player A wins on ties.

3) What is the conditional probability
   •   Player A wins given B's score is 3 (B rolled a 2)

4) What is the probability that player A will win any given game?