1) Which state(s) are absorbing?
   A) State B only   B) State E only   C) States A, C, and D   D) States B and E   E) None of these

2) If we start in state C, for how many steps should we expect to be in state A? (4 decimal places)
   A) .4717   B) 1.3208   C) .7547   D) .3000   E) None of these

3) If we start in state D, how many steps should we expect before absorption? (4 decimal places)
   A) .4000   B) 2.4259   C) 1.0000   D) 1.2668   E) None of these

4) If we start in state D, Find the probability that we are eventually absorbed into state B. (4 decimal places)
   A) .3531   B) .4636   C) .5364   D) .6469   E) None of these

Chris wants to buy Pat a used scooter that was in the paper. The scooter is $400. Every day, Chris will bet $100 until either getting to $400 or going broke. For each bet, the probability of winning is 45% (no ties).

5) If Chris starts with $100, find the probability of getting to $400. (4 decimal places)
   A) .8196   B) .5990   C) .3295   D) .0911   E) None of these

6) If Chris starts with $200, find the probability of getting to $400. (4 decimal places)
   A) .6705   B) .5990   C) .4010   D) .1804   E) None of these

7) If Chris starts with $300, find the probability of getting to $400. (4 decimal places)
   A) .6705   B) .4500   C) .4010   D) .1804   E) None of these

Given the following zero-sum games;

A: \begin{bmatrix} 3 & -2 \\ -1 & 0 \end{bmatrix}   B: \begin{bmatrix} 1 & -3 & 4 \\ 2 & -6 & 7 \end{bmatrix}   C: \begin{bmatrix} 1 & 3 & -4 \\ 2 & 0 & 1 \end{bmatrix}

8a) Is game A strictly determined? (YES or NO)
   A) Yes   B) No

b) If it is, find the value. (If not, leave this blank)

9a) Is game B strictly determined? (YES or NO)
   A) Yes   B) No

b) If it is, find the value. (If not, leave this blank)

10) Is game C strictly determined? (YES or NO)
    A) Yes   B) No

11) Is game B in favor of player I or player II (Player I plays rows).
    A) Player I   B) Player II   C) Neither