Sukhvinder Singh
Assignment 9
A.I

1.
    a. Changed max picking coin from 4 to 3 by which if a human player now picks 3 coins every time then it can easily win every time.
    b. When it goes under 20, the value of negamax breaks and program stops working.

```
"""
    This method enables the transposition table to be used
    like an AI algorithm. However it will just break if it falls
    (...)
    >>> Negamax(10, tt= my_dictTT)
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```

2.
    a. The max value for negamax parameter on which a human is winning is 1. Because if we pass only 1 then the algorithm can't produce more prediction than 1 level only. So that's why it's working.

    b. GameController([Human_Player(), Human_Player()]).play() by this line of code 2 players can play tick tac toe one by one starting with 1st player.

3.
    a. Because every time when player 1 comes to the 2nd then after playing 0 over their player 2 plays in 3rd which ends up player 2nd winning every time.
    b. When it's on 5 the algorithm can see 5 levels and increasing level for 6 and 7 inputs. So, if we increase levels the player X can see more predictions and can win easily.
    c. If we change value to 1 then player O is winning other than that player X is winning all the time.

4.
    a. We have 4 people representing 1 as player one and 2 as player two standing in a straight line. And we have 2 lines of 4 spaces in between them. And a person can either jump 1 time or 2 times as per chance. And to win this game you must touch other player's border line. And to do that you have to kill some people in between and the only way to kill other person is kill if both people are standing diagonally.
    b. It's played by 2 players staring with player one. Both players could be AI or Humans or AI vs Human. You can either move your player 1 step or 2 step.
    c. Input - 5
        i. A3 B3
        ii. A4 B4
        iii. A2 B1
        iv. B1 C1

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v. C1 D1

5.

a. On Root Node A it will be Max value which will be obtained.
b. 11