Three Dice Cee-Lo

Rules: In Cee-Lo, one player is designated the bank. The players make even money bets against the bank (that is, bet a dollar to win a dollar).

The players take turns rolling three dice. The bank rolls first. If she rolls a “4,5,6”, or three of the same numbers, “Trips”, then she automatically wins each of the player bets. If she rolls a “1,2,3”, then she loses, and each player wins their bet. If the bank rolls two of one number and one of a different number, then this third number is the score for the roll and becomes “The Point”. If the banker does not roll an immediate winning or losing combination, and does not roll a point, then she continues to roll until one of these things happens.

If the banker rolls a point, then it is the players’ turn to roll. Each player has their own turn. If a player rolls a “4,5,6”, or “Trips”, he automatically wins. If he rolls “1,2,3”, he automatically loses. If he rolls a point higher than the dealer’s, he wins, and lower than the dealers he loses. If he ties the dealer’s point, then it is a push, and he neither wins nor loses. If a player rolls a combination that is neither a win, loss or push, he continues to roll until he gets one of these things.

Pick someone to be the Bank and player a few (around 5) rounds. Record what happens. Are you surprised?

Questions:

1) How many ways can the dealer roll a win, a loss, or a point?

2) What is the probability that the dealer rolls a winning combination before the players get a chance to roll?

3) If the dealer rolls a Point of ‘2’, what are the chances that a player loses his bet?

4) Who has the advantage in this game? Why? Do not try to work out the size of the advantage (it is a pain).