Math 350 Probability – Quiz 2 – Fall 2007

Name: _____

Instructions:**Answer each question completely and show all work.**

1. Suppose three cards are drawn from a deck (without replacement). Let X be the number of jacks drawn.

    (a) Find the probability mass function for X.

    (b) Find the E(X).

    (c) Suppose you pay \$4 and you are then given the opportunity to draw 3 cards and you get \$13 for each jack you draw. What is your expected winnings (or loss) in this game?

    (d) Suppose you play the game in part c 2000 times. What is the expected number of times that you will win money.