1. We agree to play a game according to the following rules. You roll a pair of dice. If the sum of the dice is 6 or less, I will pay you $1.50. If the sum is 7 or larger, you will pay me $1. Find the expected value of the game (from your point of view). Express your answer rounded to the nearest cent. Would this be a good game for you to play? *(6 points)*

2. Three jelly beans are selected at random from a bin of colored jelly beans that contains 6 blue jelly beans, 8 red ones, and 12 green ones. Find the probability that all three are green. Express your answer as a decimal or a percentage. *(7 points)*

3. A die is rolled once. Then it is rolled a second time. Let E be the event that the sum of the two rolls is 7. Let F be the event that the first roll is 6. Calculate $p(E)$, $p(F)$, and $p(E|F)$. Are the events E and F independent? Explain. *(7 points)*