True/False - No explanation needed. (For each: 1 point if correct, 0 points if not answered, -1 points if incorrect)

1. If the probability that an event A occurs is 0 or 1, then for any event B, A and B are independent. True/False

2. If two dice are rolled, the probability that the first die is a 5 and the probability the two dice roll the same number are independent. True/False

Problems - Needs justification.

1. Find the probability mass function f of $X =$ (number of 7's in a five card hand) drawn from a standard 52 card deck. You can leave your answer as fractions with binomials. (10 points)