Problem 1  (7.1 Q 33) What is the probability that Abby, Barry and Silvia win the first, second and third prizes, respectively, in a drawing if 200 people enter a contest and:

1.A  (3 pt) No one can win more than one prize.

1.A  (3 pt) Winning more than one prize is allowed.

Problem 2  Suppose that I have a pair of 10 sided dice with numbers 1 to 10.

2.A  (2 pt) How many ways are there to roll a total of 4? (There is one more question on the back).
2.B (2 pt) Find a formula for the probability of rolling a total of \( k \) where \( 2 \leq k \leq 11 \) and prove its correctness.