

Quiz 7

True/False - No explanation needed. (1pt for correct, 0pt - no answer, -1pt - incorrect)

1. $P(\bar{B}|A) = 1 - P(\bar{B}|\bar{A})$, where "bar" notation is the complement of the event, i.e. $\bar{A} = A^c$.
True/False
2. Roll two dies. Let X be the maximum of two dies, Y be the minimum of two dies. X and Y are independent. True/False

Problems - Need justification. No justification means **zero**!

1. (10pts) Flip a biased coin 1000 times. $P(H) = 0.3$ for each flip. Let X be the number of heads.
 - a) Identify the name of distribution of X.
 - b) Identify the range of X.
 - c) Write the formula for PMF of X.
 - d) Approximate PMF of X with a Poisson, i.e. write down the Poisson PMF for this process.