INSTRUCTIONS: Answer the following questions and give adequate explanations. And beware the Ides of March! (6 points)

1. Two dice are rolled. Determine the probability that the sum of the dice is 8. (6 points)

2. Let *E* and *F* be events in some sample space *S*. If p(E) = 0.6, p(F) = 0.4, and  $p(E \cap F) = 0.3$ , use the rules of probability to determine  $p(E \cup F)$ . (7 points)

3. A coin is tossed 8 times. Determine the probability that there are 6 or more heads in the outcomes. *(7 points)*