Practice questions

Clearly describe the sample space, the events of interest, and the probability model whenever appropriate.

1. Bob estimates that the probability he gets an A in ENGG2430 and CSCI2110 this semester is 60% and 30%, respectively. He also thinks that the probability that he doesn't get an A in either course is 25%. What is the probability he gets As in both?

2. A six-sided die is loaded in a way so that face i is i times more likely to roll than face 1. What is the probability that the outcome is less than 4?

3. A bin contains 50 black balls and 50 white balls. You draw two balls without replacement. What is the probability that at least one of them is white?

4. A six-sided die is rolled three times. Which is more likely: A sum of 11 or a sum of 12? *(Textbook problem 1.49)*

5. A bin contains 3 white balls and 5 black balls. Alice and Bob take turns drawing balls from the bin without replacement until a white ball is drawn. Assuming Alice goes first, what is the probability that she gets the white ball?