

Show all your work. Late Homework will not be accepted without prior approval.

1. Find the probability of each of the events (a – d) in Hw1 Q1.
2. For the experiment in Hw1 Q1.
 - (a) Find the probability of getting two 4's.
 - (b) Find the probability of getting exactly one 4.
 - (c) Find the probability of getting at least one 4.
 - (d) Find the probability of getting no 4's.
3. Three urns each contain two red and two blue balls. A ball is selected from the first urn and placed in the second, then a ball is selected from the second and placed in the third. Finally a ball is selected from the third urn.
 - (a) Find the probability that the first ball is red.
 - (b) Find the probability that the first two balls are red.
 - (c) Find the probability that all three balls are red.
 - (d) Find the probability that none of the balls is red.
4. Design an experiment using a single fair coin with probability of success equal to
 - (a) $1/4$;
 - (b) $1/8$;
 - (c) $3/8$;
 - (d) $1/3$.