## Probability Problems

Q1. A bag contains 3 red balls and 2 yellow balls. A ball is chosen at random and is replaced. A second ball is then taken at random. Find the probability that one ball of each colour is chosen.

Q2. A box contains 4 blue counters and 6 red counters. A counter is drawn at random and then replaced. A second counter is drawn. Find the probability that a counter of each colour is drawn.

Q3. A die is rolled twice and the score noted. What is the probability that the second score is twice the first score ?

## Q4.

Sam takes a card at random and replaces it. He then picks a second card at random.
What is the probability that his first number is higher than his second ?

Q5. A die is rolled twice and the score noted. What is the probability that the second score is twice the first score ?

Q6. Mike takes two tests. The probability that Mike passes test $A$ is 0.4 If he passes test $A$ then the probability that he also passes test $B$ is 0.25 . If he does not pass $A$ then the probability that he does not pass test $B$ is 0.6 . What is the probability that he passes at least one of the tests?


