

# CBSE QUESTIONS

## 1 Probability

1. A black and a red die are rolled together. Find the conditional probability of obtaining the sum 8, given that the red die resulted in a number less than 4.
2. Suppose a girl throws a die. If she gets 1 or 2, she tosses a coin three times and notes the number of tails. If she gets 3, 4, 5 or 6, she tosses a coin once and notes whether a 'head' or 'tail' is obtained. If she obtained exactly one '*tail*', what is the probability that she threw 3, 4, 5 or 6 with the die ?
3. Two numbers are selected at random (without replacement) from the first five positive integer. Let  $X$  denote the larger of the two numbers obtained. Find the mean and variance of  $X$ .