

1. Two coins are flipped together. Using H for head and T for tail, list all the pairs of combinations from flipping the coins.
2. Sandwiches are available in chicken(C), beef(B) and ham(H). They can have fillers of salad(S), chilli(CH) and coleslaw(CO). Using the letter code e.g chicken and coleslaw C.CO , list all the pairs of combinations of sandwiches.
3. Two dices are thrown together. By drawing a table of all possible outcomes, work out the probability of the following scores. (answers to 3 d.p.)

(a) 12 (b) 2 (c) 10 (d) 7 (e) 5
4. Two coloured spinners, each with 4 coloured regions(red, blue, green & yellow) are spun one after the other.
What is the probability of the following outcomes? (answers to 3 d.p.)

(a) two colours the same (b) red followed by a red (c) two different colours
5. Two coins are tossed at the same time. What is the probability of the following outcomes:

(a) one head and one tail (b) two heads (c) both coins land the same way up
6. Three balls, one coloured yellow, one black and one white are in a cloth bag. One ball is removed from the bag and then another, without replacing the first ball. (answers to 3 d.p.)

(a) What is the probability that a black ball is selected followed by a yellow ball?
(b) On a new selection of two balls from three, what is the probability that a black ball is left in the bag?
7. A standard pack of cards consists of four suits of 13 cards - diamonds(red), hearts(red), clubs(black) and spades(black).
If two cards are chosen randomly,

(a) what is the probability that the second card will be the same suit as the first?
(b) what is the probability that both cards will be aces.
(c) what is the probability that both cards will be black.
(answers to 4 d.p.)

1. (a) HT (b) TT (c) HH

2. C.S C.CH C.CO B.S B.CH B.CO H.S H.CH H.CO

3. (a) 0.028 (b) 0.028 (c) 0.083 (d) 0.167 (e) 0.111

4. (a) 0.250 (b) 0.063 (c) 0.750

5. (a) 0.5 (b) 0.25 (c) 0.5

6. (a) 0.167 (b) 0.167

7. (a) 0.2353 (b) 0.0045 (c) 0.2451