# IGCSE – Probability/tree diagram

## Oct 03 Paper 4

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Adam writes his name on four red cards and Daniel writes his name on six white cards.

(a) One of the ten cards is chosen at random. Find the probability that

(i) the letter on the card is **D**, [1]

(ii) the card is red, [1]

(iii) the card is red **or** the letter on the card is **D**, [1]

(iv) the card is red **and** the letter on the card is **D**, [1]

(v) the card is red **and** the letter on the card is **N**. [1]

(b) Adam chooses a card at random and then Daniel chooses one of the remaining 9 cards at random.
Giving your answers as fractions, find the probability that the letters on the two cards are

(i) both **D**, [2]

(ii) both **A**, [2]

(iii) the same, [2]

(iv) different. [2]

## May 05 Paper 2

10 Rooms in a hotel are numbered from 1 to 19.
Rooms are allocated at random as guests arrive.

(a) What is the probability that the first guest to arrive is given a room which is a prime number?
(1 is not a prime number.)

*Answer (a)* ..... [2]

(b) The first guest to arrive is given a room which is a prime number.
What is the probability that the second guest to arrive is given a room which is a prime number?

*Answer (b)* ..... [1]