(1) There are 3 sections on a spinner. The sections are A, B and C. P(A) = 0.4 and P(B) = P(C)
(a) Find P(B) and P(C)_____
The spinner is spun 600 times.
(b) How many times would you expect it to land on the letter B?_____
(c) Explain why the spinner is biased.

_____
_____

(2) Fred is carrying out an experiment where he picks Skittles out of a bag and eats them. There are 84 Skittles in the bag. 14 of the Skittles are green, 38 are purple and the rest are red. Find the relative frequency of each colour giving your answer to 1 decimal place where appropriate.

_____
_____

(3) There are 80 people in an office. ¼ of the office workers are men and the rest are women. Of the men 8 liked sport and the rest didn't. Of the women 1/3 liked sport and the rest didn't.
(a) Using the information given, complete the frequency tree below.
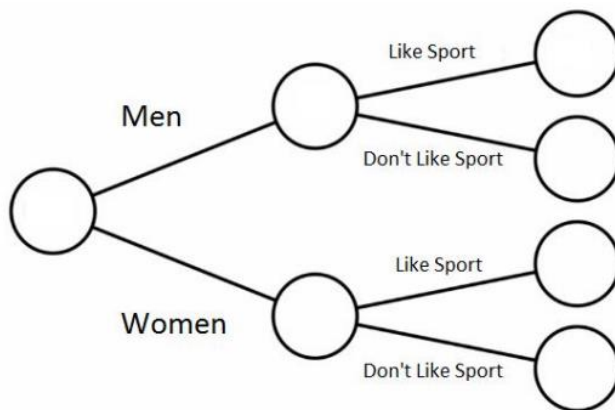
(b) One person is chosen at random from the office. Find P(Man who likes sport)._____
(c) A woman is chosen at random from the office. Find the probability that it's a woman who didn't like sport._____

(4) Two spinners are spun at the same time and the outcomes are written down.
Spinner 1 has the letters A, B and C on. Spinner 2 has the numbers 1, 2 and 4 on.
(a) List all of the possible outcomes when the two spinners are spun. The first one is done for you:
A1

(b) Find the probability of obtaining a square number AND a vowel when the two spinners are spun._____

(5) A 4 sided dice is rolled which has the numbers 1, 2, 3 and 4 on. The table below shows some information about the probability of the dice landing on each number.
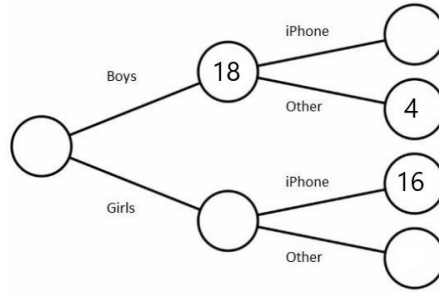
Number	1	2	3	4
Probability	0.3	0.02	0.4	

(a) Complete the table.
(b) Explain the dice is biased._____
(c) If the dice is rolled 800 times, how many times would you expect it to land on the number 4?_____

(6) In a class the ratio of girls to boys is 2:1. The frequency tree below shows some information about the phones the students owned.

(a) Complete the frequency tree.
(b) One student is chosen at random. The probability of that student being chosen was 20/54. What information do we know about this student? _____

(7) Two spinners are spun and their scores are multiplied. This result is the score given in a game. The numbers on Spinner 1 are 2, 3 and 5 and the numbers on Spinner 2 are 3, 5 and 6.
(a) Complete the sample space below including any labels.

(b) Find the probability that the score is greater than 10._____
(c) Given that the score is greater than 10, find the probability of the score being even._____

(8) Bob plays snooker. He can either win or lose. P(win) = 0.4
If Bob plays 150 games, how many would you expect him to lose? _____

(9) At a school there are 120 staff members. Some are men and the rest are women. The members of staff either eat at school or go home for lunch.
72 of the staff members are men.
1/3 of the men go home for lunch.
3 times as many men go home for lunch as women.
(a) Draw a frequency tree using this information.

(b) One person is chosen at random from the staff members. Find P(go home for lunch)_____

(10) In a bag of sweets there are 18 mint, 23 chocolate and 8 toffee. Find the relative frequency of each flavour.

_____
_____