NAME

Time:

Non-Calculator Questions

3rd

1 Choose the word, from the list below, that best describes the probability of these events.

          impossible   **unlikely**   **even chance**   **likely**   **certain**

    a an ordinary fair dice lands on a 6 ....   **(1 mark)**

    b a coin lands on heads ....   **(1 mark)**

    c a randomly chosen pupil has a birthday on a day ending with the letter y …................................

                                                                  (1 mark)

4th

3 A bag contains 15 beads.

Seven beads are red.

Six beads are green.

Two beads are blue.

A bead is taken at random from the bag, calculate the probability that the bead is

    a red

                                                                  (1 mark)

    b green or blue

                                                                  (1 mark)

    c not yellow

                                                                   (1 mark)

    d black

                                                                  (1 mark)

4th

5 The probability that Paul is late for school is 0.3

Work out the probability that Paul is not late for school.

                                                                  (1 mark)

8th

7 A biased 5-sided spinner can land on 1, 2, 3, 4 or 5

The table shows the probabilities of the spinner landing on 1, 2, 3 and 4

Number landed on	1	2	3	4	5
Probability	0.2	0.3	0.3	0.1	

a Work out the probability that the spinner lands on 5

(2 marks)

b Work out the probability that the spinner lands on an even number.

(2 marks)

c Shanlaya spins the spinner 200 times.

Work out the number of times the spinner is expected to land on 2.

(2 marks)

6th

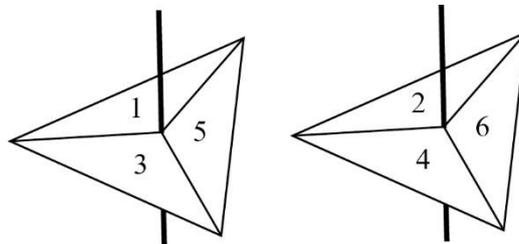**9** Pablo plays a game with two fair spinners.

The first spinner is numbered 1, 3, 5.

The second spinner is numbered 2, 4, 6.

The score is found by adding the number the first spinner lands on to the number the second spinner lands on.

	2nd spinner		
1st spinner	**2**	**4**	**6**
1			
3			9
5			

a Complete the table to show all possible scores.

(2 marks)

b Work out the probability of getting a score that is more than 8.

(2 marks)

c Work out the probability that the score is a prime number.

(2 marks)

11 The table gives information about students' arrangements for lunch one day.

	School lunch	Packed lunch	Go home for lunch	Total
Male	23	12	3	38
Female	11	25	6	42
Total	34	37	9	80

One of these students is chosen at random. Find the probability that the student

a had a packed lunch,

(1 mark)

b was male and had a school lunch.

(1 mark)

One of the female students is chosen at random.

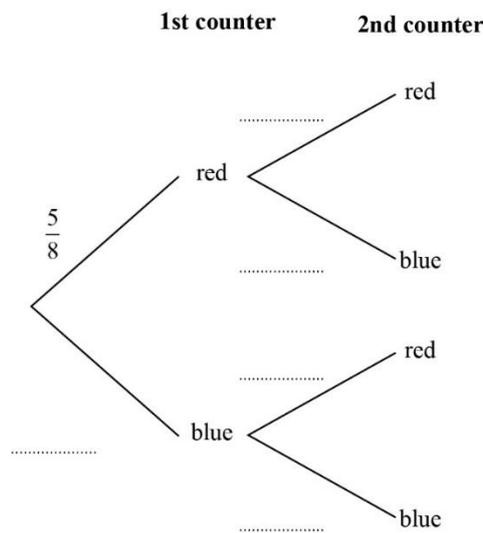**c** Work out the probability that this female student went home for lunch.

(2 mark)

13 Flo has a bag containing five red countrers and three blue counters.

Flo takes one counter from the bag, replaces it and then takes a second counter.

a Complete this tree diagram.

1st counter   2nd counter

(2 marks)

b Find the probability that Flo takes two red counters.

(2 marks)

c Find the probability that Flo takes one red counter and one blue counter.

(3 marks)

Overall mark	/31

4