

Surname	
Other Names	
Candidate's Signature	

## GCSE 9 - 1 Questions

### Relative Probability

**Calculator Allowed**

#### INSTRUCTIONS TO CANDIDATES

Write your name in the space provided.

Write your answers in the spaces provided in this question paper.

Answer ALL questions.

Any working should be clearly shown in the spaces provided since marks may be awarded for partially correct solutions.

You should have a ruler, compass and protractor where required.

**Total Marks :**

- 1) A spinner can point to the colours Red, Green, Yellow, Blue or Black. The probabilities are given in the table.

Colour	Red	Green	Yellow	Blue	Black
Probability	0.3	0.15	0.2	0.25	0.1

- (a) What colour is the spinner least likely to point to?

Answer \_\_\_\_\_ [1]

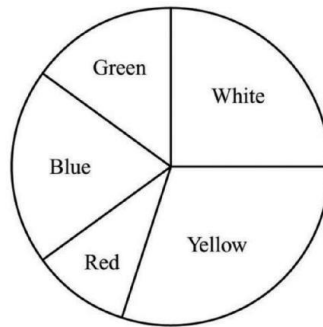
- (b) What colour is the spinner most likely to point to?

Answer \_\_\_\_\_ [1]

- (c) If the spinner is spun 600 times, estimate how many times you would expect the colour to be Green.

Answer \_\_\_\_\_ [2]

2)



A spinner can land on one of 5 colours. The probability of the spinner landing on four of the colours is given in the table below.

Colour	Red	Blue	White	Yellow	Green
Probability	0.1		0.25	0.3	0.15

(a) What is the probability that the spinner will land on blue?

Answer \_\_\_\_\_[2]

The spinner is spun 600 times.

(b) How many times would you expect the spinner to land on white or green?

Answer \_\_\_\_\_[2]

3) A bag of 25 potatoes selected at random in a store has 4 bad potatoes. How many potatoes are expected to be bad out of a bag of 200 potatoes?

Answer \_\_\_\_\_ [2]

- 4) An office block has 120 female workers and 180 male workers.  
The probability that a female worker lives locally is 0.55 whilst the probability that a male worker lives locally is 0.4  
How many of the workers live locally?

Answer \_\_\_\_\_ [4]

- 5) A bubble gum machine contains red, yellow, green and pink bubble gum.  
The probabilities of getting some colours are given in the table.

Colour	Red	Yellow	Green	Pink
Probability	0.2		0.25	0.15

- (a) What is the probability of getting yellow bubble gum?

Answer \_\_\_\_\_ [2]

- (b) Which colour bubble gum are you least likely to get?

Answer \_\_\_\_\_ [2]

- (c) How many green bubble gum will be in a batch of 60?

Answer \_\_\_\_\_ [2]

6) Shots in an arcade game are rewarded with one of five possible scores.

Score	2	5	10	20	25
Probability	0.35	0.25		0.15	0.1

(a) Complete the table to show the probability of a score of 10 [2]

(b) A player takes a single shot.

What is the probability that he scores at least 10?

Answer \_\_\_\_\_ [2]

(c) A player takes 60 shots. How many times would you expect this player to score exactly 5?

Answer \_\_\_\_\_ [2]