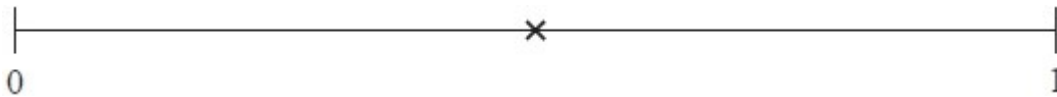


## GCSE QUESTIONS

### Q1. CALCULATOR ALLOWED

The probability of an event is shown by the cross (x) on the probability scale.



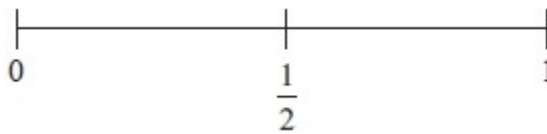
Write down an estimate for the probability of the event.

.....  
(Total for question = 1 mark)

### Q2. CALCULATOR ALLOWED

An ordinary fair dice is thrown once.

- (a) On the probability scale below, mark with a cross (x) the probability that the dice lands on an odd number.



(1)

- (b) Write down the probability that the dice lands on a number greater than 4

.....  
(1)  
(Total for question = 2 marks)

### Q3. CALCULATOR ALLOWED

There are some boys and girls in a classroom.

The probability of picking at random a boy is  $\frac{1}{3}$

What is the probability of picking a girl?

.....  
(Total for question = 1 mark)

### Q4. CALCULATOR ALLOWED

There are 49 counters in a bag. 20 of the counters are red. The rest of the counters are blue.

One of the counters is taken at random. Find the probability that the counter is blue.

.....  
(Total for question = 2 marks)

**Q5. CALCULATOR ALLOWED**

The probability that a new fridge has a fault is 0.015

What is the probability that a new fridge does **not** have a fault?

.....  
(Total for question = 1 mark)

**Q6. CALCULATOR ALLOWED**

There are 29 children in a class. 13 of the children are girls.

One of the children is chosen at random. Write down the probability that the child is a boy.

.....  
(Total for question = 2 marks)

**Q7. CALCULATOR ALLOWED**

There are 25 boys and 32 girls in a club.

$\frac{2}{5}$  of the boys and  $\frac{1}{2}$  of the girls walk to the club.

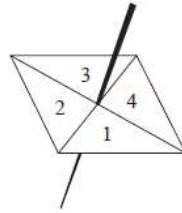
The club leader picks at random a child from the children who walk to the club.

Work out the probability that this child is a boy.

.....  
(Total for question = 3 marks)

**Q8. CALCULATOR ALLOWED**

Here is a 4-sided spinner.



The table shows the probabilities that when the spinner is spun it will land on 1, on 3 and on 4

<b>Number</b>	1	2	3	4
<b>Probability</b>	0.2		0.4	0.1

The spinner is spun once.

- (a) Work out the probability that the spinner will land on 2

.....  
(1)

- (b) Which number is the spinner least likely to land on?

.....  
(1)

Jake is going to spin the spinner 60 times.

- (c) Work out an estimate for the number of times the spinner will land on 1

.....  
(2)

**(Total for question = 4 marks)**

**Q9. CALCULATOR ALLOWED**

A scout group has a raffle to raise money for charity. There is 1 prize to be won in the raffle.

Laura buys 12 raffle tickets. A total of 350 raffle tickets are sold.

Find the probability that Laura does **not** win the prize.

.....  
(Total for question = 2 marks)

**Q10. CALCULATOR ALLOWED**

The table shows the probabilities that a biased dice will land on 2, on 3, on 4, on 5 and on 6

<b>Number on dice</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Probability</b>		0.17	0.18	0.09	0.15	0.1

Neymar rolls the biased dice 200 times.

Work out an estimate for the total number of times the dice will land on 1 or on 3

.....  
 (Total for question = 3 marks)

**Q11. CALCULATOR ALLOWED**

There are only blue counters, green counters, red counters and yellow counters in a bag. George is going to take at random a counter from the bag.

The table shows each of the probabilities that George will take a blue counter or a green counter or a yellow counter.

<b>Colour</b>	blue	green	red	yellow
<b>Probability</b>	0.5	0.2		0.25

(a) Work out the probability that George will take a red counter.

.....  
 (1)

There are 120 counters in the bag.

(b) Work out the number of green counters in the bag.

.....  
 (2)  
 (Total for question = 3 marks)

**Q12. CALCULATOR ALLOWED**

There are only blue counters, yellow counters, green counters and red counters in a bag.  
A counter is taken at random from the bag.

The table shows the probabilities of getting a blue counter or a yellow counter or a green counter.

<b>Colour</b>	blue	yellow	green	red
<b>Probability</b>	0.2	0.35	0.4	

(a) Work out the probability of getting a red counter.

.....  
(1)

(b) What is the least possible number of counters in the bag?

You must give a reason for your answer.

.....  
.....

(2)  
(Total for question = 3 marks)