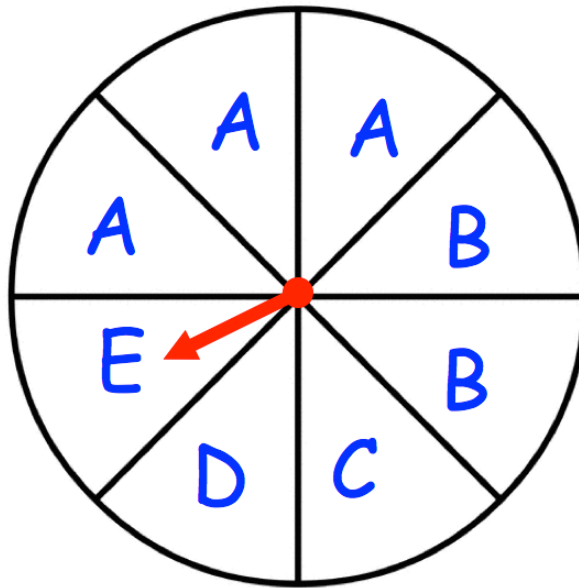


8. A fair spinner has eight equal sections.
The sections are labelled A, B, C, D and E as shown below.



The arrow is spun.

- (a) Which is the most likely letter that the arrow will land on?

.....
(1)

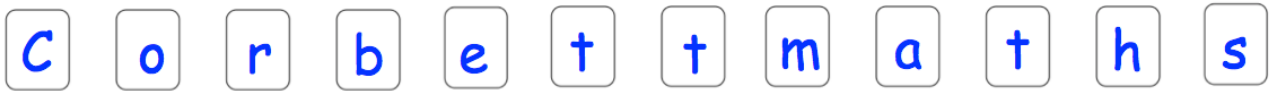
- (b) What is the probability that the arrow lands on a B?

.....
(1)

- (c) What is the probability that the arrow lands on an A?

.....
(1)

9. Thomas has 12 cards, each with a letter on it.



He picks a card at random.

Write down the probability that the chosen card is

(a) the letter h

.....
(1)

(b) the letter t

.....
(1)

(c) **not** the letter e

.....
(2)

(d) the letter b **or** the letter t

.....
(2)

(e) a vowel

.....
(2)

10. A bag contains 10 discs.
Each disc is labelled with a different number from 1 to 10.
A disc is chosen from the bag at random.

Write down the probability that the chosen disc is

- (a) the number 3

.....
(1)

- (b) a number less than four

.....
(2)

- (c) a square number

.....
(2)

- (d) a prime number

.....
(2)

-
11. Liam rolls an ordinary fair six sided dice.
Write down the probability that he gets

- (a) the number 4

.....
(1)

- (b) a number less than 5

.....
(2)

12. Sean has a box of pens.
The box contains 6 blue pens, 8 black pens and 3 red pens.

(a) What is the probability that he will pick a blue pen?

.....
(1)

(b) What is the probability that he will pick a green pen?

.....
(1)

Some more blue pens are added to the box.
The probability of selecting a blue pen is now $\frac{1}{2}$

(c) How many blue pens were added to the box?

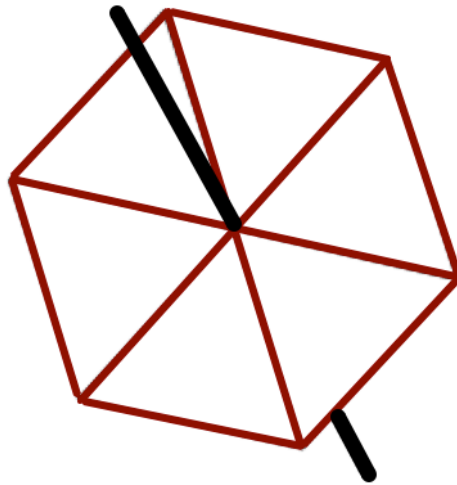
.....
(2)

13. Tony makes a fair six-sided spinner.
The spinner has the numbers 7, 8 and 9 on it.

The probability the spinner will land on 7 is greater than the probability that the spinner will land on 8.

The probability that the spinner will land on 9 is $\frac{1}{3}$

Write the numbers on the spinner.



(2)

14. Elizabeth has a bunch of red, yellow and white roses.
She chooses a rose at random.

The probability that she chooses a yellow rose is 0.1

The probability that she chooses a white rose is 0.2

- (a) What is the probability that Elizabeth chooses a rose that is either yellow or white?

.....
(1)

- (b) What is the probability that Elizabeth chooses a red rose?

.....
(2)

- (c) There were ten roses in the bunch originally.
How many roses were red?

.....
(2)

15. Mia has five numbered cards.



One of these cards is chosen at random.

Mia says:

The probability of an odd number is $\frac{3}{5}$

The probability of a 7 is $\frac{2}{5}$

The range of the numbers is 10

The probability of a 2 is 0.

Fill in three numbers that could be on Mia's cards.

.....
(3)

16. Counters labelled A, B, C, D and E are placed in a bag.

The table shows the probabilities of picking each letter at random.

Letter	A	B	C	D	E
Probability	0.07	0.15	0.26		0.18

(a) Calculate the missing probability in the table.

.....
(2)

(b) Calculate the probability of a B or C.

.....
(2)

17. A bag contains 400 coloured counters.
 The counters are either yellow, brown or green.
 There are 92 yellow counters in the bag.
 The probability that a brown counter is chosen from the bag is 0.13

Calculate the number of green counters in the bag.

.....
(4)

18. Each boy at a school plays one of four sports.

The table shows the probability a student chosen at random plays rugby, football, hockey or cricket.

Sport	Rugby	Football	Hockey	Cricket
Probability	0.4	0.2	0.1	

A student is chosen at random.

- (a) Work out the probability that the student plays cricket.

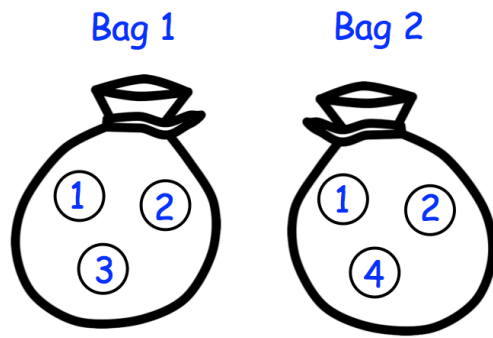
.....
(2)

There are 600 boys at the school

- (b) Work out the number of boys who play rugby.

.....
(2)

1. Two bags, 1 and 2, each contain three counters that are equal size.



In bag 1, the counters are labelled 1, 2 and 3.

In bag 2, the counters are labelled 1, 2 and 4.

A counter is drawn at random from bag 1 and a counter is drawn at random from bag 2.

The two numbers are added together to give a score.

- (a) Complete the table to show all possible scores.

		Bag 1		
	+	1	2	3
1		2	3	
2				
4				

Bag 2

(1)

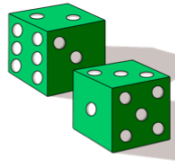
- (b) Find the probability of scoring a 4

.....
(1)

- (c) Find the probability of less than 5

.....
(2)

2. Two fair six sided dice are rolled.



The numbers on the two dice are **multiplied** together to give a score.

(a) Complete the table to show all possible scores.

		Dice 1					
×		1	2	3	4	5	6
Dice 2	1						
	2						
	3						
	4						
	5						
	6						

(2)

(b) Find the probability of a score of 12

.....
(1)

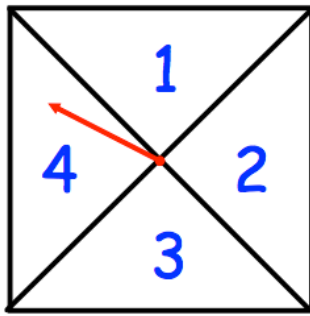
(c) Find the probability of a score of 10 or more

.....
(2)

(d) Find the probability of an even number

.....
(2)

3. Jordan is playing a game with a fair four sectioned spinner and a fair coin.



He spins the spinner and flips the coin.

If the coin lands on heads, his score is **one more** than the number on the spinner.

If the coin lands on tails, his score is the number on the spinner **doubled**.

(a) Complete the table to show all the possible shows that Jordan can get.

		Spinner			
		1	2	3	4
Coin	Heads				
	Tails				

(2)

(b) Write down the probability that Jordan gets a score of

(i) 4

.....
(1)

(ii) 5 or more

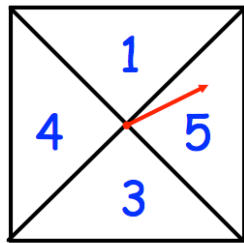
.....
(2)

(iii) a prime number

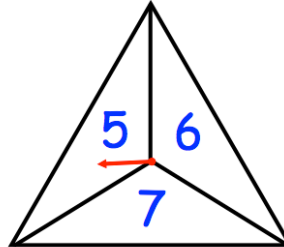
.....
(2)

4. Two fair spinners are spun.

Spinner 1 has four equal sections labelled 1, 3, 4 and 5.
 Spinner 2 has three equal sections labelled 5, 6 and 7.



Spinner 1



Spinner 2

Each spinner is spun once.
 The numbers are added together to get a score.

(a) Complete the table to show all possible scores.

		Spinner 1			
		1	3	4	5
Spinner 2	5				
	6				
	7				

(2)

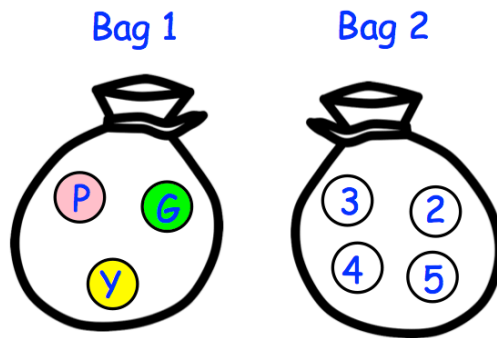
(b) Find the probability of scoring a 8

.....
 (1)

(c) Find the probability of scoring an odd number

.....
 (1)

5. Two bags, 1 and 2, each contain counters that are equal size.



Bag 1 contains a pink counter, green counter and yellow counter.

Bag 2 contains counters labelled 2, 3, 4 and 5.

A counter is drawn at random from bag 1 and a counter is drawn at random from bag 2.

If the counter from bag 1 is pink, the number on the counter from bag 2 is doubled.

If the counter from bag 1 is green, one is added to the number on the counter from bag 2

If the counter from Bag 1 is yellow, the number on the counter from bag 2 stays the same.

(a) Complete the table to show all possible scores.

		Bag 1		
		P	G	Y
Bag 2	2			
	3			
	4			
	5			

(2)

(b) Find the probability of scoring a multiple of 3

.....
(2)