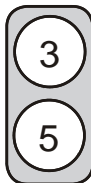
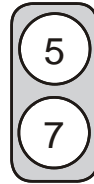
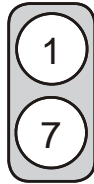
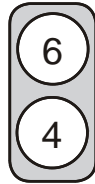


Name _____

Date _____

Probability

1. Each of these cards has two numbers on it.



Stefan chooses one card without looking.

He adds the two numbers together.

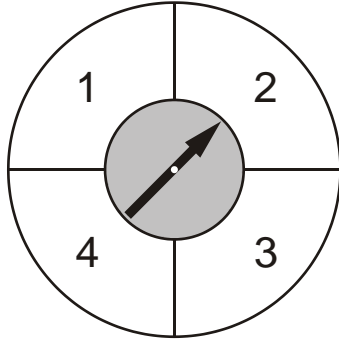
What is the **most likely** total of the numbers on his card?



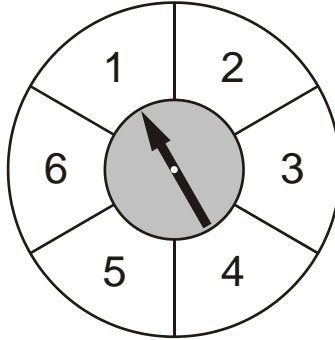
1 mark

2. Here are two spinners, P and Q.

Spinner P has 4 equal sections.
Spinner Q has 6 equal sections.



P



Q

Ben spins the pointer on each spinner.

For each statement below, put a tick (✓) if it is correct.
Put a cross (✗) if it is not correct.



Ben is **more likely** to score 4
on spinner P than on spinner Q.

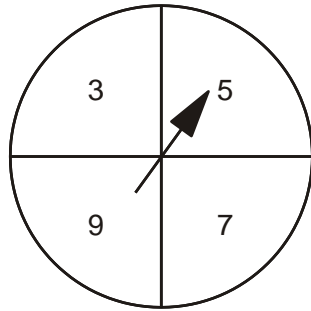
The score on spinner P is **certain** to be less
than the score on spinner Q.

Ben is **equally likely** to score an even number
on spinner P and spinner Q.

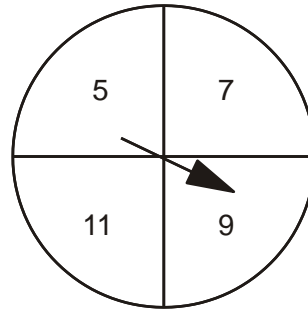
A score of less than 3 is **equally likely**
on spinner P and spinner Q.

2 marks

3. Here are two spinners, A and B.



A



B

Hassan spins the pointer on each spinner.

He adds his two scores together.

For each statement put a tick (✓) to show if it is **certain**, **possible** or **impossible**.

One has been done for you.



	certain	possible	impossible
The total will be more than 15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The total will be an even number	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The total will be less than 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The score on A will be less than the score on B.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 marks

4. Sapna makes up a game using seven cards.

Here are the cards.



Josh picks a card without looking.

If Josh picks an **odd** number then Sapna scores a point.

If Josh picks an **even** number then Josh scores a point.

Is this a fair game?
Circle Yes or No.

 Yes / No

Explain how you know.



.....

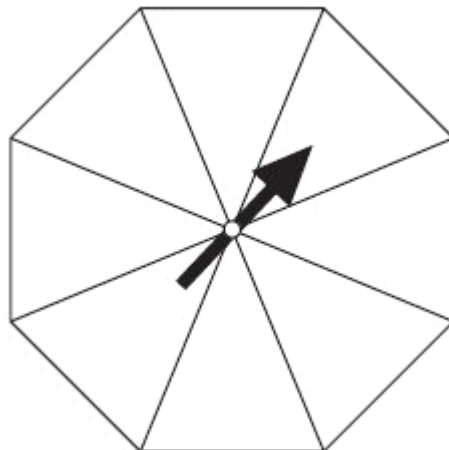
.....

.....

1 mark

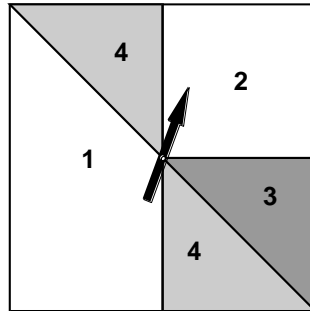
5. Here is a spinner which is a regular octagon.

Write 1, 2 or 3 in each section of the spinner so that
1 and 2 are equally likely to come up and
3 is the least likely to come up.



2 marks

6. Here is a square spinner.



Look at these statements.

For each one put a tick (✓) if it is **correct**.
Put a cross (✗) if it is **not correct**.

'4' is the **most likely** score.

'2' and '4' are **equally likely** scores.

Odd and even scores are **equally likely**.

A score of '3' or more is **as likely as** a score of less than '3'.

2 marks

7. Dan has a bag of seven counters numbered **1 to 7**

Abeda has a bag of twenty counters numbered **1 to 20**

Each chooses a counter from their own bag without looking.

For each statement, put a tick (✓) if it is **true**.

Put a cross (✗) if it is **not true**.

Dan is **more likely** than Abeda to choose a '**5**'

They are both **equally likely** to choose **a number less than 3**

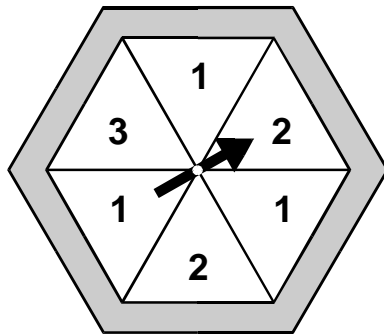
Dan is **more likely** than Abeda to choose an **odd number**.

Abeda is **less likely** than Dan to choose a '**10**'

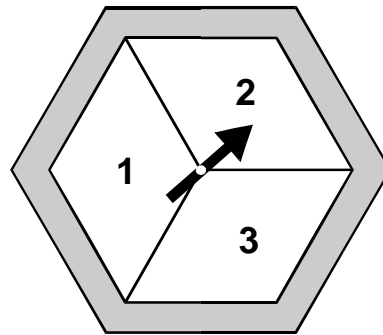
2 marks

8. Here are two spinners, A and B.

Each one is a regular hexagon.



A



B

For each statement, put a **tick** (✓) if it is **true**.

Put a **cross** (✗) if it is **not true**.



Scoring '1' is **more likely** on A than on B.

Scoring '2' is **more likely** on A than on B.

Scoring '3' is **as equally likely** on A as on B.

1 mark

Zara spins both spinners.

The score on A is added to the score on B.

She says,

'The sum of the scores on both spinners is certain to be less than 7'.

Is she correct?

Circle Yes or No.



Yes / No

Explain how you know.



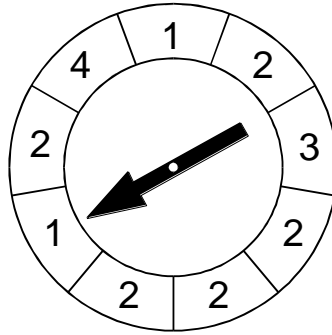
.....

.....


.....

1 mark

9. The spinner is divided into **nine** equal sections.



Which **two different numbers** on the spinner are equally likely to come up?



1 mark

Meera says,

'2 has a greater than even chance of coming up'.

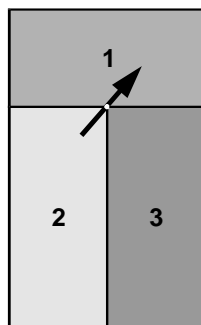
Explain why she is correct.



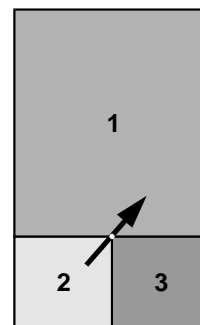
.....
.....

1 mark

10. Katie made two spinners, **A** and **B**.



spinner A



spinner B

She says,

'Scoring a 1 on spinner A is just as likely as scoring a 1 on spinner B'.

Explain why this statement is correct.

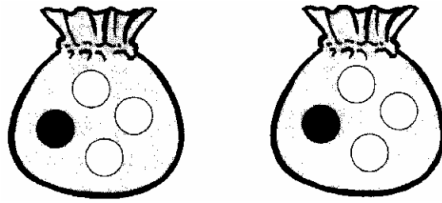


.....
.....

1 mark


11. Here are two bags.

Each bag has **3 white balls** and **one black ball** in it.



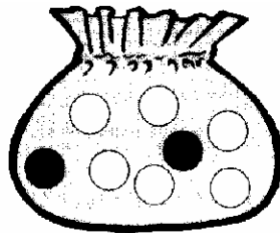
A ball is taken from **one of the bags** without looking.

What is the probability that it is a **black ball**?

Give your answer as a fraction. 

1 mark

All the balls from **both bags** are now mixed together in a new bag.

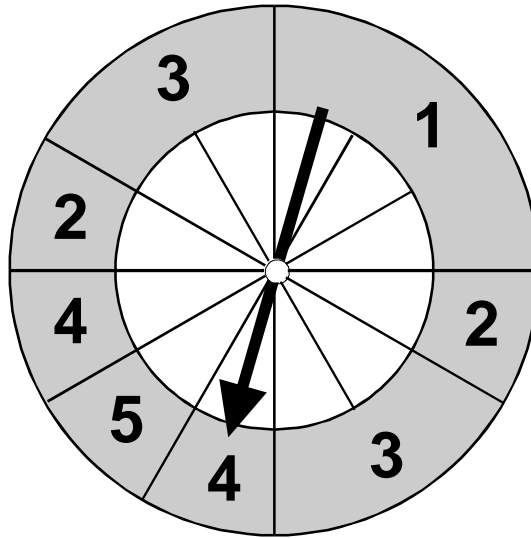


Put a **cross (X)** on this line to show the probability of taking a **black ball** from the new bag.



1 mark

12. The outer ring of this spinner has **8 sections** labelled with the numbers **1 to 5**.
The inner ring has **12 equal sections** on it.



Laura spins the pointer.

Which is the pointer **most likely** to stop on?

Give a reason for your answer.



.....
.....
.....

1 mark

What is the probability of getting an **even number** on this spinner?

Give your answer as a fraction.



□

1 mark

13. Samir spins a **fair** coin and records the results.



In the first four spins **'heads'** comes up each time.

1st spin	2nd spin	3rd spin	4th spin
Head	Head	Head	Head

Samir says,

'A head is more likely than a tail.'

Is he **correct**? Circle Yes or No.



Yes / No

Give a reason for your answer.



.....

.....

.....

1 mark

14. Harry has **six** tins of soup.

The labels have fallen off.

Here are the labels and tins.

Pea Soup

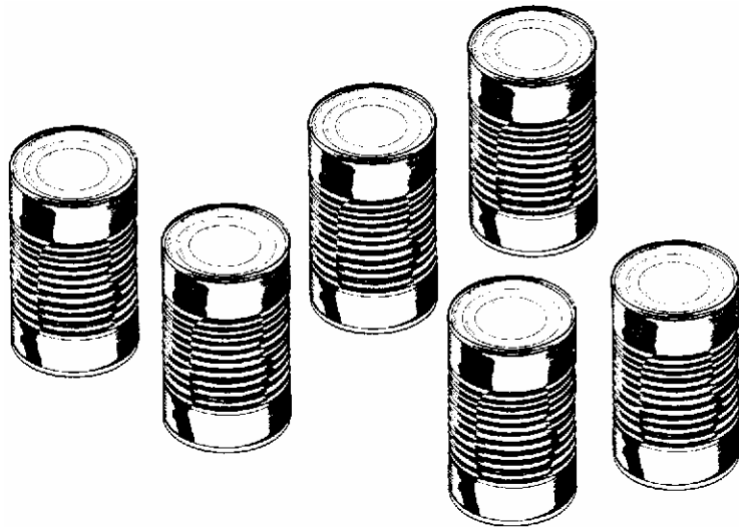
Tomato Soup

Chicken Soup

Pea Soup

Tomato Soup

Mushroom Soup



Harry chooses a tin.

What is the **probability** that it is a tin of **Pea Soup**?

Give your answer as a fraction.

A small pencil icon is positioned at the top left corner of a rectangular box, indicating where to write the answer.

1 mark

What is the **probability** that the tin he chooses is **NOT** a tin of **Tomato Soup**?

Give your answer as a fraction.

A small pencil icon is positioned at the top left corner of a rectangular box, indicating where to write the answer.

1 mark