

Name: _____

ASM Tuition Academy

PROBABILITY

Instructions:

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
- there may be more space than you need.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all you're working out**.

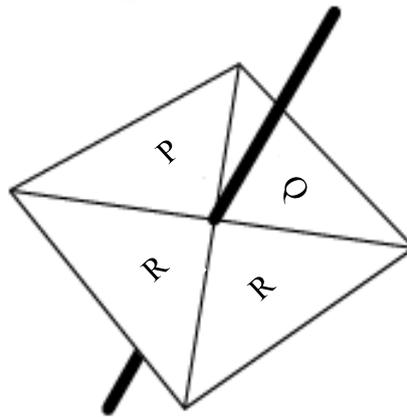
Information:

- The marks for each question are shown in brackets
- use this as a guide as to how much time to spend on each question.

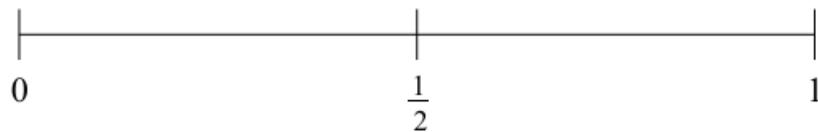
Advice:

- Read each question carefully before you start to answer it.
- Keep an eye on time.
- Try to answer every question.
- Check your answers if you have time at the end.

Q1. John spins a fair 4-sided spinner.



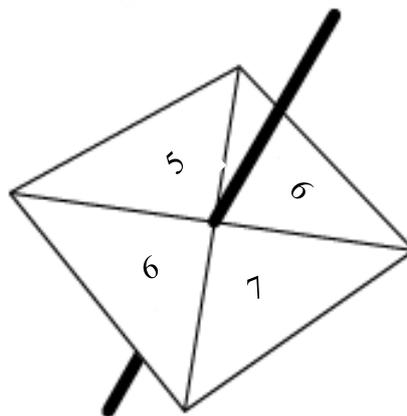
(a) On the probability scale mark with a cross (X) the probability that the spinner lands on P.



(b) Write down the probability that the spinner lands on R.

(Total for question 1 is 2 marks)

Q2. Rahim spins a fair 4-sided spinner.



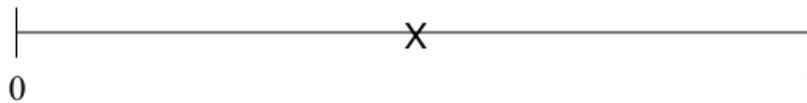
(a) On the probability scale mark with a cross (X) the probability that the spinner lands on 6.



(b) Write down the probability that the spinner lands on 7.

(Total for question 2 is 2 marks)

Q3. The probability of an event is marked with a cross (X) on the probability scale.



Write down an estimate for the probability of the event.

(Total for question 3 is 1 mark)

Q4. Here is a list of 8 alphabets.

A, B, C, D, E, F, G, H

One of the numbers is chosen at random.

Write down the probability that this alphabet is H.

(Total for question 4 is 1 mark)

Q5. There are 30 pencils in a box. 5 pencils are red, 15 pencils are blue and 10 pencils are green.

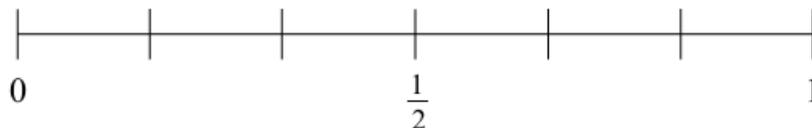
One pen is selected at random from the box.

- (a) Write down the probability that pen is green.
- (b) Write down the probability that pen is black.

(Total for question 5 is 2 marks)

Q6. An ordinary fair dice is thrown once.

- (a) On the probability scale mark with a cross (X) the probability that the dice lands on an even number.

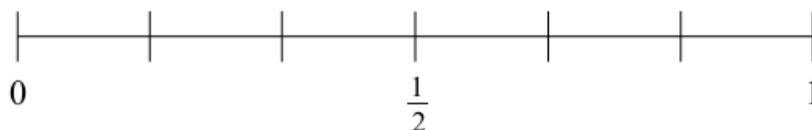


- (b) Write down the probability that the dice lands on a number less than 5.

(Total for question 6 is 2 marks)

Q7. An ordinary fair dice is thrown once.

- (a) On the probability scale mark with a cross (X) the probability that the dice lands on 10.

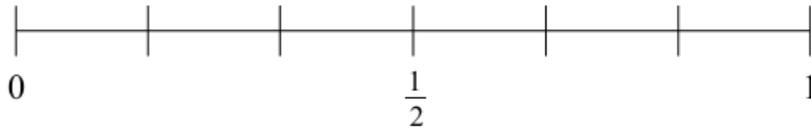


- (b) Write down the probability that the dice lands on a number greater than 5.

(Total for question 7 is 2 marks)

Q8. An ordinary fair dice is thrown once.

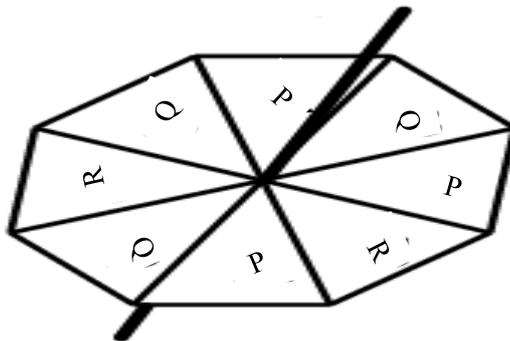
- (a) On the probability scale mark with a cross (X) the probability that the dice lands on a number less than 7.



- (b) Write down the probability that the dice lands on 4.

(Total for question 8 is 2 marks)

Q9. Sameer spins a fair 8-sided spinner



- (a) Write down the probability that the spinner lands on P.

(Total for question 9 is 1 mark)

Q10. Amir buys one raffle ticket. A total of 400 raffle tickets is sold. One of these tickets will win the raffle. Each ticket has an equal chance of winning the raffle.

- (a) Write down the probability that Amir's ticket will win the raffle.
(b) Write down the probability that Amir's ticket will not win the raffle.

(Total for question 10 is 2 marks)

Q11. The probability of Brooklyn winning a Football match is $\frac{3}{14}$. Work out the probability that Brooklyn does not win a football match.

(Total for question 11 is 1 mark)

Q12. The probability of Tom winning a badminton match is 0.9. Work out the probability that Tom does not win a badminton match.

(Total for question 12 is 1 marks)

Q13. There are 30 candies in a jar. 12 of the candies are blue. The rest of the candies are green. One candy is taken at random.
Find the probability that the candy is blue.

(Total for question 13 is 2 marks)

Q14. There are 24 balls in a basket. 8 of the balls are red. 6 of the balls are blue. The rest of the balls are yellow. One ball is chosen at random.
Find the probability that the ball is yellow.

(Total for question 14 is 2 marks)

Q15. There are 45 marbles in a jar. 18 of the marbles are green. The rest of the marbles are yellow. One marble is taken at random.
Find the probability that the marble is yellow.

(Total for question 15 is 2 marks)

Q16. A draw is being held to win a prize. Ali buys 12 tickets. A total of 400 tickets are in the draw.
Find the probability that Ali does not win the prize.

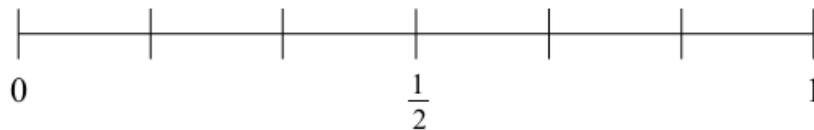
(Total for question 16 is 2 marks)

Q17. There are 10 candies in a jar. 5 candies are yellow. 3 candies are purple. 2 candies are pink. One candy is selected at random from the jar. One marble is selected at random from the bag.

(a) On the probability scale mark with a cross (X) the probability that the candy is yellow.



(b) On the probability scale mark with a cross (X) the probability that the marble is white.



(c) Write down the probability that marble is purple.

(Total for question 17 is 3 marks)

Q18. Here are some number cards.



One of the cards is selected at random.

- (a) Write down the probability that card has the number 6 on it.
- (b) Find the probability the card has an even number on it.

(Total for question 18 is 2 marks)

Q19. There are some counters in a bag. The table shows the number of counters of each colour.

Colour	Gray	Pink	White	Black
Number of Counters	2	4	6	8

A counter is taken at random from the bag.

- (a) Write down the probability that the counter is black.
- (b) Write down the probability that the counter is not pink.

(Total for question 19 is 2 marks)

Q20. In a bag of sweets there are: 9 strawberry sweets, 6 orange sweets, 5 lemon sweets. Sara takes one sweet at random.

Write down the probability that Sara takes a lemon sweet.

(Total for question 20 is 2 marks)

Q21. There are red counters, blue counters, yellow counters and green counters in a bag. A counter is picked at random from the bag. The table shows the probabilities that the counter will be red, will be blue and will be yellow.

Colour	Red	Blue	Yellow	Green
Probability	0.4	0.3	0.2	

Complete the table to show the probability that the counter will be green.

(Total for question 21 is 2 marks)
