

Q1. In a game, players roll two ordinary, fair six-sided dice. The numbers rolled are added to get a score.

(a) Complete the table of possible scores.

		Dice 2						
		+	1	2	3	4	5	6
Dice 1	1	2	3	4	5	6	7	
	2	3	4	5	6	7	8	
	3	4	5	6	7	8		
	4	5	6	7	8			
	5	6	7	8				
	6	7	8					

(1)

(b) What is the most likely score?

Answer

(1)

(c) To win a prize a player must score 8.

Work out the probability of winning a prize.

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Answer

(2)

(Total 4 marks)

Q2. Four teams A, B, C and D play matches against each other. The teams play each other once.

Complete the list of matches.
One match has been done for you.

A plays B

(Total 2 marks)

Q3.

Cards with the letters L, M and P are placed next to each other.

- (a) List all the possible orders of the letters.
One has been done for you.

L	M	P

(2)

- (b) The three cards are placed next to each other at random.

What is the probability that L is the middle letter?

Answer

(1)

(Total 3 marks)

Q4.A lunchbox contains **one** sandwich and **one** drink from this list.

Sandwiches	Drinks
Cheese (C)	Blackcurrant (B)
Ham (H)	Lemonade (L)
Prawn (P)	Water (W)

(a) List **all** possible combinations.

One has been done for you.

CB

(3)

(b) One combination is chosen at random.

What is the probability that it is Ham and Water?

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Answer


(1)
 (Total 4 marks)



Q5.Beth collects this information about Year 7 sports clubs for the school newspaper.

Sports club	Number of members
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Football	40
Table tennis	5
Basketball	10
Netball	15

- (a) Use the information to complete the pictogram.
The first two rows have been done for you.
Remember to complete the key.

Key:  represents members

Football	
Table tennis	
Basketball	
Netball	

(3)

- (b) Use the information to write a headline about the sports clubs.

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.....

(1)

- (c) The 40 members of the football club are put into teams of five.
Each team plays a match against one of the other teams.

How many matches are played?

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Answer

(2)
(Total 6 marks)

Q6. Fair spinner A has five equal sections labelled 1, 2, 3, 4, 5.
Fair spinner B has five equal sections labelled 6, 7, 8, 9, 10.

Each spinner is spun once and the numbers are added.

Work out the probability that the total is 12 or more.

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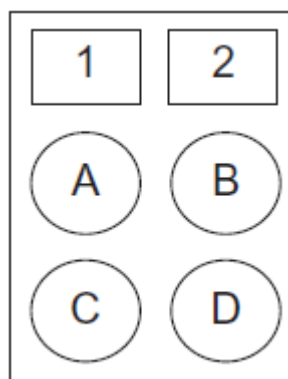
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Answer

(Total 5 marks)

Q7. The diagram shows a door lock.



The code is a number followed by a letter.
 Steve enters a code at random.

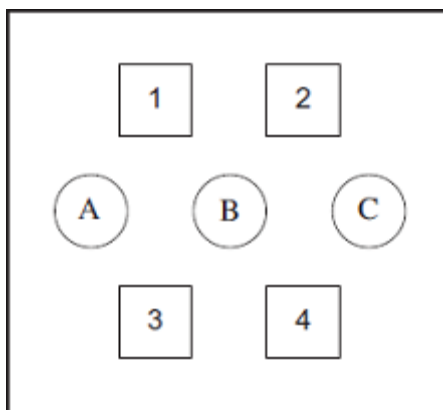
Work out the probability that he has entered the correct code.

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Answer

(Total 3 marks)

Q8. The diagram shows a door lock.



The code (number, letter, number) is entered by pressing a button from each row in turn (top row, middle row, bottom row).

Sarah knows that the code begins with 1.
 She presses 1 and then enters the rest of the code at random.

Work out the probability that she enters the correct code.

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Answer

(Total 3 marks)

Q9. In a college canteen students can choose

a starter and a main course

or

a main course and a pudding.

Starter	Main Course	Pudding
Soup	Curry	Jelly
	Burger	Fruit
	Pasta	

(a) One combination is soup and curry.

How many different combinations are there?

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Answer

(2)

(b) All of the combinations are equally popular.

A student is chosen at random.

What is the probability that he has jelly?

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Answer

(1)

(c) The canteen serves 270 students one Monday.

How many jellies do they expect to serve?

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Answer

(2)
(Total 5 marks)

Q10. There are three types of Easter eggs.

Milk chocolate M

Dark chocolate D

White chocolate W

The eggs come in three sizes.

Small S

Large L

King size K

- (a) List **all** possible combinations of chocolate type and size.
The first one has been done for you.

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(3)

- (b) A box contains equal numbers of each egg.
One egg is chosen at random.

What is the probability that a small milk chocolate egg is chosen?

Answer

(1)
(Total 4 marks)

Q11. Matt and Ruba each have one coin.
The total amount of money is less than 50p.

Work out the probability that exactly one of the coins is a 10p piece.
Assume that all possible coins are equally likely.

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Answer

(Total 4 marks)

Q12. A 10p coin and a 2p coin are tossed.

List **all** the possible outcomes.
Use H for heads and T for tails.

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(Total 2 marks)