

1. Nov/2022/Paper_0580_11/No.14

Mario tests new cars.

The probability that a car is faulty is 0.04 .

(a) Find the probability that a car is not faulty.

..... [1]

(b) In one week Mario tests 850 cars.

Find the number of cars that are expected to be faulty.

..... [2]

2. Nov/2022/Paper_0580_11/No.11

A 4-faced dice is numbered 1 to 4.

The table shows some of the probabilities of scoring each number.

Number	1	2	3	4
Probability	0.17		0.28	0.31

Complete the table.

[2]

3. Nov/2022/Paper_0580_21/No.25

A bag contains 5 red balls, 4 blue balls and 3 green balls.

- (a) (i) Megan picks a ball at random.

Write down the probability that the ball is red or blue.

..... [1]

- (ii) Megan replaces the ball.
She picks a ball at random, notes the colour and replaces the ball.
She repeats this 60 times.

Calculate the number of times the ball is expected to be red or blue.

..... [1]

- (b) Mick picks 2 of the 12 balls at random, without replacement.

Calculate the probability that the balls are different colours.



..... [4]

- (c) Marie picks balls at random, without replacement, from the 12 balls.
When she picks a green ball she stops.

The probability that she picks a green ball on pick n is $\frac{21}{220}$.

Find the value of n .

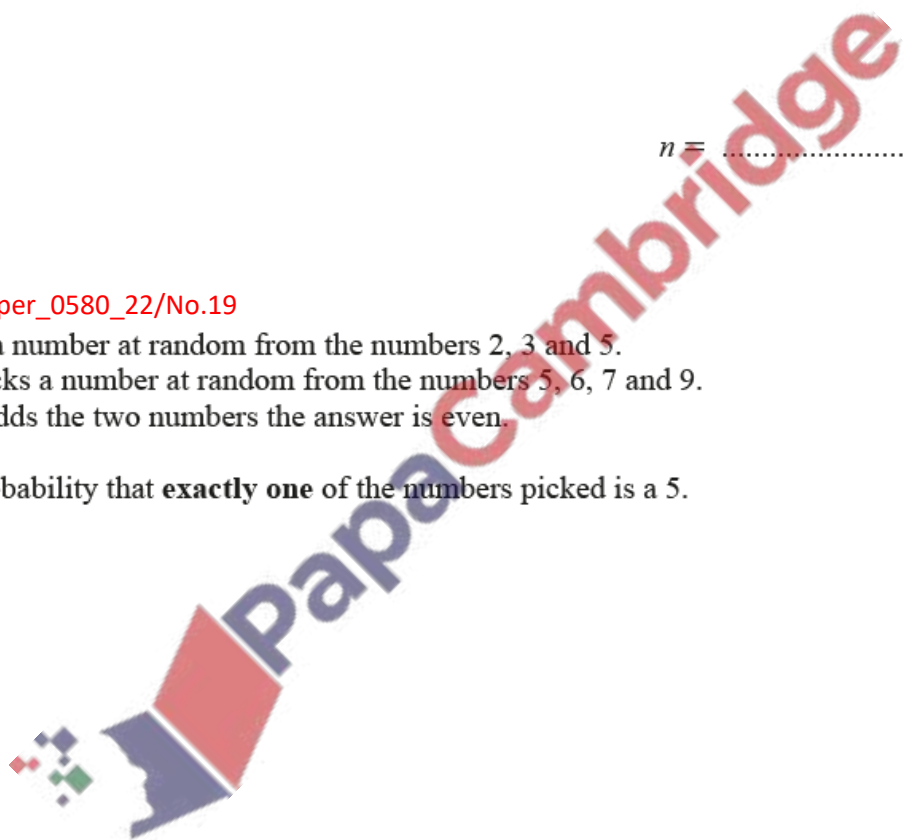
$n = \dots\dots\dots$ [2]

4. Nov/2022/Paper_0580_22/No.19

Katy picks a number at random from the numbers 2, 3 and 5.
She then picks a number at random from the numbers 5, 6, 7 and 9.
When she adds the two numbers the answer is even.

Find the probability that **exactly one** of the numbers picked is a 5.

$\dots\dots\dots$ [3]



5. Nov/2022/Paper_0580_23/No.6

A spinner can land on the colours green, black or red.

The table shows the probabilities of the spinner landing on green or black.

Colour	Green	Black	Red
Probability	$\frac{2}{5}$	$\frac{1}{4}$	

(a) Complete the table.

[2]

(b) Chang spins the spinner 120 times.

Find the expected number of times it lands on green.

..... [1]

6. Nov/2022/Paper_0580_32/No.9

(a) Alvian has a bag containing 35 counters.

6 are pink, 8 are blue and the rest are either green or yellow.

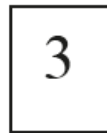
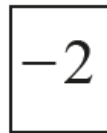
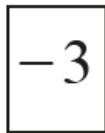
He picks one counter at random.

The probability that Alvian picks a green counter is $\frac{2}{7}$.

Find the number of yellow counters in the bag.

..... [3]

Regan is playing a game with these six number cards.



- (a) She takes two cards at random, without replacement, and **multiplies** the two numbers to give a score.

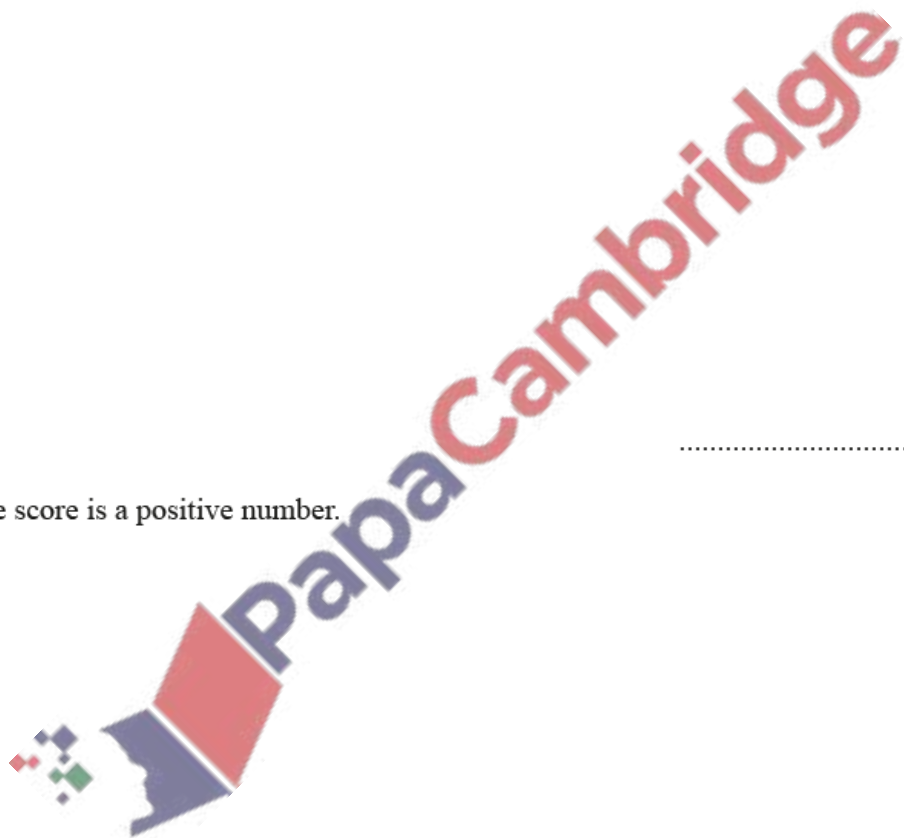
Find the probability that

- (i) the score is 35

..... [3]

- (ii) the score is a positive number.

..... [3]



- (b) Regan now takes three cards at random from the six cards, without replacement, and **adds** the three numbers to give a total.

Find the probability that her total is 5.

..... [4]

