Topic test 1 (20 minutes)
Probability – Foundation (Non-calculator)

1   In a raffle there is one winning ticket.
In total 360 tickets are sold.

1 (a)   Rachel buys 12 tickets.

What is the probability she buys the winning ticket?
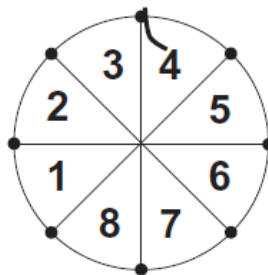Give your answer as a fraction in its simplest form.

[2 marks]

Answer _____

1 (b)   How many tickets should Zain buy to have a $\frac{1}{90}$ chance of winning?

[2 marks]

Answer _____

2 In a game, a player spins this wheel.
The wheel is fair.

What is the probability that the player scores

2 (a) an even number greater than 2?

[1 mark]

Answer _____

2 (b) a prime number?

[1 mark]

Answer _____

2 (c) a square number?

[1 mark]

Answer _____

2 (c) a number that is a factor of 24?

[1 mark]

Answer _____

3   There are 40 counters in a bag.

Three-eighths of the counters are yellow.
One-fifth of the counters are red.
The rest of the counters are blue.

One counter is chosen at random.

Work out the probability that the counter is blue.

[4 marks]

Answer _____

4 A class of 30 students are asked about their favourite hobby.

The results are shown in the table. Some of the values are missing.

Hobby	Boy	Girl	Totals
Playing football		2	10
Reading	2	1	3
Watching TV	5		9
Playing computer games	3	5	8
Totals	**18**	**12**	**30**

A student is chosen at random.

Work out the probability that the student is:

4 (a) a boy whose favourite hobby is playing football

[2 marks]

Answer _____

4 (b) a girl whose favourite hobby is not reading

[2 marks]

Answer _____

The teacher chooses a student at random from the class and it is a boy,

4 (b) Work out the probability that his favourite hobby is either watching TV or playing computer games.

Give your answer as a fraction in its simplest form.

[3 marks]

Answer _____

END OF QUESTIONS