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- 1 The probability that a spinner will land on blue is 0.4

Rayyan is going to spin the spinner 280 times.

Work out an estimate for the number of times the spinner will land on blue.

$$0.4 \times 280 = 112$$

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(Total for Question 1 is 2 marks)

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- 2 Toy cars are made in a factory.
The toy cars are made for 15 hours each day.
5 toy cars are made every 12 seconds.

For the toy cars made each day, the probability of a toy car being faulty is 0.002

Work out an estimate of the number of faulty toy cars that are made each day.

$$1 \text{ minute} = 60 \text{ seconds}$$

$$1 \text{ hour} = 60 \times 60 \text{ seconds} \\ = 3600 \text{ seconds}$$

$$15 \text{ hours} = 15 \times 3600 \\ = 54000 \text{ seconds}$$

$$\frac{54000}{12} = 4500$$

$$4500 \times 5 = 22500 \text{ cars made}$$

$$22500 \times 0.002 = 45 \text{ faulty cars}$$

(Total for Question 2 is 4 marks)

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- 2 Each time John plays a game, the probability that he wins the game is 0.65

John is going to play the game 300 times.

Work out an estimate for the number of games that John wins.

$$0.65 \times 300 = 195$$

(Total for Question 2 is 2 marks)

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- 5 Each time Evie plays a game against her computer, she will win or lose.

For each game, the probability that Evie will win is 0.74
Evie is going to play 300 games against her computer.

Work out an estimate for the number of games that Evie will lose.

$$0.74 \times 300 = 222 \text{ wins}$$

$$300 - 222 = 78 \text{ loses}$$

(Total for Question 5 is 2 marks)



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