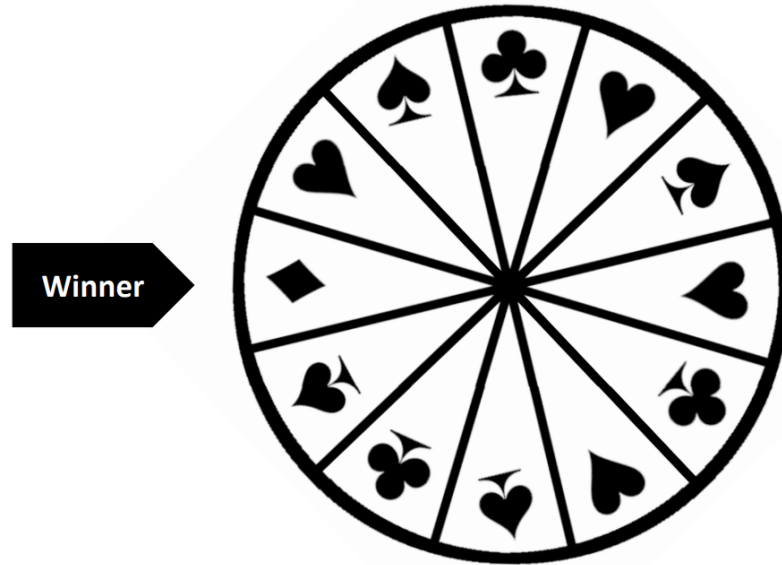**Non-calculator Questions**

City & Guilds

1.

> If the wheel is spun again what is the chance of ♦ being the winner?
> Give your answer as a fraction.

$$\frac{\boxed{}}{\boxed{}}$$

(1 mark)

2.

A box of chocolates contains 4 hard centres, 6 soft centres and 2 plain chocolates.
A woman chooses a chocolate at random.

> What is the probability that she takes either a hard centre or a soft centre?
> Give your answer as a fraction in its lowest terms.

$$\frac{\boxed{}}{\boxed{}}$$

(1 mark)

1

Highfield

3.

You are helping at Highfield Sweet Shop.

A customer buys a bag of mixed sweets.

The bag contains 21 toffees, 10 mints, 4 jelly beans and 7 caramels.

The customer shakes the bag and picks a sweet at random.

What is the probability that they pick a caramel?

Show your working out and write the answer in the box below.

(2 marks)

Answer: _____

AQA

4.

The probability of event A happening is 0.15

Work out the probability of event A **not** happening.

[1 mark]

Answer _____

5.

At the event, Padma sells 800 raffle tickets for £2 each.

Altogether, the people on one table spend £110 on raffle tickets.

Padma tells the people on the table,

    "The probability that someone on this table wins the first prize is more than 5%"

Is she correct?

You **must** show your working.

[3 marks]

_____

_____

_____

_____

_____

_____
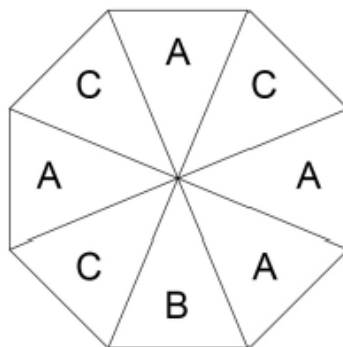
6.

Here is a fair spinner.

Circle the probability that the spinner lands on A.

[1 mark]

    0.5   0.125   0.375   0.3

Calculator Questions

Edexcel

1.

Benji sells items in a shop and online.

In a survey he asked 100 people if they

- prefer to buy items in a shop or online
- are aged under 25 years, 25 to 40 years or over 40 years.

56 of the 100 people prefer to buy online.
27 of the people aged under 25 years prefer to buy online.
12 of the 33 people aged 25 to 40 years prefer to buy in a shop.

Of the people aged over 40 years, 8 prefer to buy online and 17 prefer to buy in a shop.

One person who prefers to buy in a shop is chosen at random to win a prize.

(a) What is the probability that this person is aged under 25 years?
You **must** show your working.

(4)

NCFE

2.

This table shows how long each job took Dan **last year**.

Time per cleaning job	Number of jobs
30 < time ≤ 60 minutes	14
60 < time ≤ 90 minutes	22
90 < time ≤ 120 minutes	30
120 < time ≤ 150 minutes	16
Total	82

Dan's accounts are checked by the tax office.

They pick one of **last year's** jobs at random to check.

What is the probability that the job would have taken more than 90 minutes?

[1 mark]

Your answer:

3.

A witness said the suspect is under 5 feet 10 inches tall, and has blonde hair.

Alice is shown 15 photographs:

		Hair colour	
		Blonde	**Not blonde**
Height	**Under 5 feet 10 inches**	3	6
	Over 5 feet 10 inches	4	2

Alice picks one of the photographs at random.

What is the probability that it is of a person who has blonde hair and is under 5 feet 10 inches tall?

Give your answer as:
- a fraction
- a decimal.

[2 marks]

Your answer:

Fraction:
Decimal:

4.

The probability that a festivalgoer chosen at random has travelled by car is $\frac{14}{25}$

What is the probability that they **did not** travel by car?

Give your answer as a decimal.

[2 marks]

Your answer:

City & Guilds

5.

A social club sells 50 pink raffle tickets and 75 yellow raffle tickets.

Tickets are drawn randomly.

What is the probability that the first ticket drawn will be a pink ticket?

Give your answer as a decimal.

(1 mark)

AQA

6.

The probability of an event happening is $\dfrac{3}{5}$

Circle the probability of the event **not** happening.

[1 mark]

$$1 \qquad\qquad \frac{2}{5} \qquad\qquad \frac{3}{5} \qquad\qquad 0$$