Level 2 Functional Skills Mathematics
SAMPLE PAPER 2

City & Guilds
A City & Guilds Group Business
Version 1.1

Duration: 25 minutes
Total marks: 15 marks

SECTION 1 – CALCULATOR NOT PERMITTED

Candidate name (first, last)

First

Last

Candidate enrolment number

Date of birth (DDMMYYYY)

Assessment date (DDMMYYYY)

Centre number

Candidate signature and declaration*

***I declare that I had no prior knowledge of the questions in this assessment and that I will not share information about the questions.**

Please check that your name is correctly printed on the candidate barcode label.
If not, please tell the invigilator before the start of the exam.

You should have the following for this assessment:

- a pen with black or blue ink
- a pencil (for diagrams, graphs and charts only)
- an eraser
- a 30cm ruler.

You must NOT use a protractor.
You must NOT use a calculator for Section 1.

General instructions

- Read through each question carefully.
- Write all your answers in this booklet.
- Check your calculations and check that your answers make sense.

SECTION 1 – CALCULATOR NOT PERMITTED

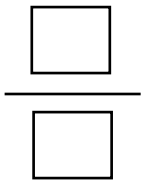
There are **15** marks available in this section.

You should check all your work as you go along.

You must **not** use a calculator in this section.

Q1

What is 108 as a fraction of 648? Give your answer in its simplest form.



(1 mark)

Q2

Which one of the following lists is in decreasing order?

(*tick one box)*

A $\frac{1}{5}$ 0.05 $\frac{17}{50}$ 0.15 ☐

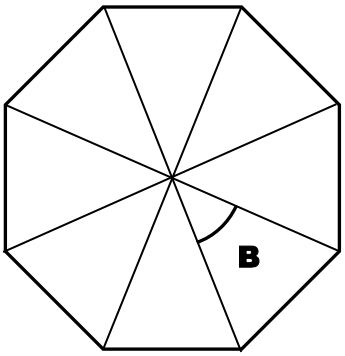
B 0.05 $\frac{17}{50}$ $\frac{1}{5}$ 0.15 ☐

C 0.15 $\frac{1}{5}$ 0.05 $\frac{17}{50}$ ☐

D $\frac{17}{50}$ $\frac{1}{5}$ 0.15 0.05 ☐

(1 mark)

Q3 The diagram shows a regular polygon.



What is the size of angle B.

_____ °

(1 mark)

Q4

Work out the value of y if 4y = 144

_____

(1 mark)

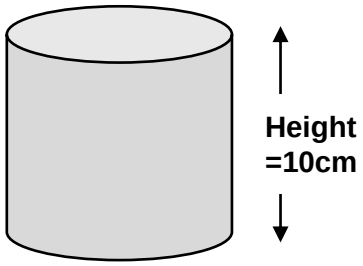
Q5

$\frac{3^2}{3} - 28 =$

_____

(1 mark)

Q6 The radius of the top of this cylinder is **7cm**



Use

$$\pi = \frac{22}{7}$$

What is the volume of the cylinder?

_____ cm^3

(1 mark)

Q7

$\frac{11}{8} - \frac{1}{16} =$

(*tick one box)*

A $\frac{5}{8}$ ☐

B $1\frac{5}{8}$ ☐

C $1\frac{5}{16}$ ☐

D $2\frac{5}{16}$ ☐

(1 mark)

Q8

4.50 ÷ 0.05 =

_____

(1 mark)

Q9

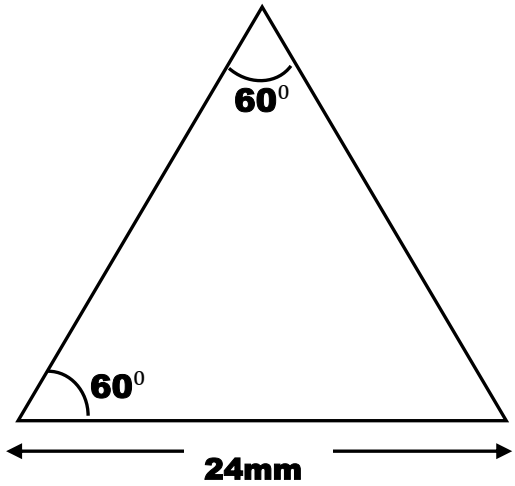


Diagram not to scale

What is the perimeter of this triangle?

_____**mm**

(1 mark)

Q10 A call centre aims to deal with calls in less than 5 minutes.

Calls come in randomly.

The table shows data for the calls made to the centre.

Type of call	Proportion of all calls	Completed in less than 5 minutes
Customer complaints	1/4	1/2
New business	3/4	1/8

Work out the probability that the next call will be a customer complaint completed within under 5 minutes.
Give your answer as a fraction in its simplest form.

$$\frac{\square}{\square}$$

(1 mark)

Q11 The government announces that the minimum wage for people over 25 years old will increase from £8.21 to £8.72 per hour.

A 26 year old woman works 30 hours a week and is paid the minimum wage.

She thinks that the extra money she will earn will cover a rent increase of £20 per week.

Is the woman correct? Show your calculation.

Decision *(tick one)* **yes** ☐ **no** ☐
Calculation

(1 mark)

Q12 A driver sees this speed limit sign in France. The speed is in kilometres per hour.

He is driving at 80 miles per hour.

$1 \text{ kilometre} = \frac{5}{8} \text{ mile}$

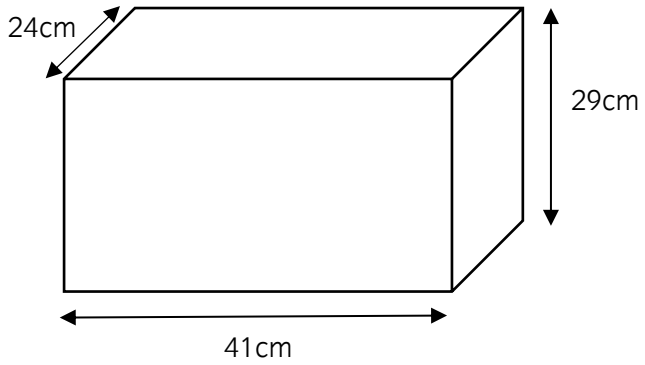
He thinks this is below the speed limit.

Is he correct? Explain your answer showing your calculation.

Decision *(tick one box)* **yes** ☐ **no** ☐
Explanation

(2 marks)

Q13 A man has a fish tank with the following dimensions:



He needs to know approximate volume of the tank.

What is its approximate volume?

_____ **cm^3**

(2 marks)

End of Section 1