

Please check the examination details below before entering your candidate information

Candidate surname

Other names

**Pearson Edexcel
Functional Skills**

Centre Number

Candidate Number

*****Past Paper 6*****

Time: 25 minutes

Paper Reference **PMAT2/N06**

Mathematics

Level 2

Section A (Non-Calculator)



You must have:

Pen, HB pencil, eraser, ruler graduated in cm and mm, protractor, pair of compasses. Tracing paper may be used.

Total Marks

My signature confirms that I will not discuss the content of the test with anyone.

Signature: _____

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Sign the declaration.
- Answer **all** questions.
- Write your final answers in the boxes provided.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You **must** show clearly how you get your answers in the spaces provided. Marks will be awarded for your working out.
- Check your working and answers at each stage.
- Diagrams are **not** accurately drawn, unless otherwise indicated.
- **Calculators may not be used.**
- Take the value of π to be 3.14

Information

- The total mark for this section is 16.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- This sign ☒ shows where marks will be awarded for showing your checks.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over ►

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.CG Maths.
Worked Solutions


Pearson

Please note that these worked solutions have neither been provided nor approved by Pearson Education and may not necessarily constitute the only possible solutions. Please refer to the original mark schemes for full guidance.

Any writing in blue should be written in the exam.

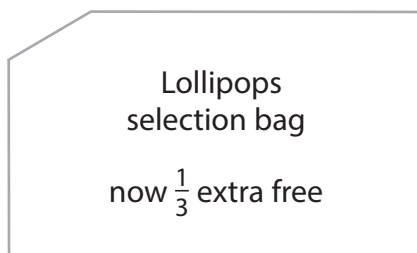
Anything written in green in a rectangle doesn't have to be written in the exam.

If you find any mistakes or have any requests or suggestions, please send an email to curtis@cgmaths.co.uk

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

- 1 Jai needs to buy 25 lollipops for a party.
He sees this offer.



Jai knows a normal selection bag contains 18 lollipops.
He thinks he will have enough lollipops if he buys a selection bag with this offer.

Is Jai correct?

Show why you think this.

(3)

$18 \div 3$ ← This works out that $\frac{1}{3}$ of the 18 lollipops is 6

$18 + 6 = 24$ ← Adding the 6 extra free lollipops to the 18 lollipops works out that there are 24 lollipops in the selection bag with this offer

24 lollipops is less than the 25 lollipops needed

No

(Total for Question 1 is 3 marks)

2 Here is a formula

$$d = \frac{180(n-2)}{n}$$

Find the value of d when $n = 5$

(3)

$5 - 2$ ← This works out that $n - 2 = 3$

$$\begin{array}{r} 180 \\ \times 3 \\ \hline 540 \end{array}$$
 ← Multiplying the 180 by the 3 works out that the $180(n-2) = 540$

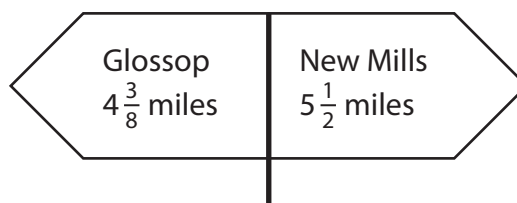
$$\begin{array}{r} 108 \\ 5 \overline{) 540} \\ \underline{5} \\ 0 \\ \underline{0} \\ 0 \end{array}$$
 ← Dividing the 540 by 5 works out the value of d

108

(Total for Question 2 is 3 marks)

3 Andrew is a member of a walking club.

He sees this sign next to a footpath.



Andrew will walk from this sign along the footpath to Glossop to meet his friend. They will then both walk back along the footpath to the sign and then onto New Mills.

Work out the total distance that Andrew walks.

Give your answer as a mixed number.

You **must** show your working.

(4)

$$4 + 4 + 5 = 13$$

The total distance is 2 lots of the distance to Glossop (there and back) and the distance to New Mills combined. First dealing with the whole numbers

$$\frac{3}{8} + \frac{3}{8} + \frac{4}{8}$$

Next dealing with the fractions. Multiplying both the numerator and denominator of $\frac{1}{2}$ by 4 to make $\frac{4}{8}$ so that it has the same denominator as the $\frac{3}{8}$

$$\frac{10}{8}$$

The numerators can be added and the denominator stays the same

$$1\frac{2}{8} + 13$$

Converting to a mixed number by dividing the numerator (10) by the denominator (8). This gives 1 (which is the whole number) with a remainder of 2 (which is left in the fraction). Then adding on the 13 miles

$$14\frac{2}{8} \text{ miles}$$

(Total for Question 3 is 4 marks)

- 4 A box contains bags of crisps.
Each bag of crisps is either beef flavour, prawn flavour or cheese flavour.

Beth is going to take at random a bag of crisps from the box.

The table shows each of the probabilities that the flavour will be beef or will be cheese.

flavour	beef	prawn	cheese
probability	0.4		0.35

- (a) Work out the probability that Beth takes a bag of prawn flavour crisps.

(2)

$$\begin{array}{r} 0.40 \\ + 0.35 \\ \hline 0.75 \end{array}$$

Adding the probabilities of beef and cheese works out that there is 0.75 in the table so far

$$\begin{array}{r} 1.00 \\ - 0.75 \\ \hline 0.25 \end{array}$$

It is certain to get either beef, prawn or cheese so the probabilities need to add up to 1. Subtracting the 0.75 so far from 1 leaves 0.25 for prawn

0.25

200 workers are asked about the favourite drink they have at work.

Some of the results are shown in the table below.

(b) Complete the two-way table.

(2)

$$A: 27 - 10 = 17$$

$$B: 46 - 8 = 38$$

$$C: 17 + 8 = 15 \text{ then } 88 - 15 = 63$$

$$D: 63 + 64 = 127$$

		Favourite drink			
		water	tea	coffee	total
Workers	office	17 A	63 C	8	88
	warehouse	10	64	38 B	112
	total	27	127 D	46	200

(c) What is the probability that a worker choosing coffee works in the office?
Give your answer as a fraction in its simplest form.

(2)

$$\frac{8}{46}$$

8 work in the office out of 46 who choose coffee

Simplifying the fraction by dividing both the numerator and denominator by 2. It cannot go any simpler as 4 and 23 cannot be divided by the same amount to get smaller whole numbers

$$\frac{4}{23}$$

(Total for Question 4 is 6 marks)

TOTAL FOR SECTION A IS 16 MARKS