Please check the examination details below before entering your candidate information
 Set 8


## You must have:

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

My signature confirms that I will not discuss the content of the test with anyone.
Signature: $\qquad$

## 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 $\pi$ to be 3.14


## Information

- The total mark for this section is 14 .
- 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 $\boxed{\checkmark}$ 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.



## SECTION A

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

1
$7 \times 13=91$
(a) What is $91 \div 7$ ?


2 Esme is putting copper tape around a flower bed in her garden.
The flower bed is rectangular in shape.
She has this sketch of the flower bed.


Esme wants enough tape to go around all the edges of the flower bed 3 times.

Work out the length of tape Esme needs.
Give your answer in cm.
$\square$
(Total for Question $\mathbf{2}$ is $\mathbf{3}$ marks)

3 Jeff is looking for car insurance.
He must tell the insurance company the mean number of miles he drives his car each year.
Jeff bought his car 5 years ago.
Jeff knows when he bought the car the mileage was 27563
Today the mileage is 72889

Work out the mean mileage each year for the last 5 years.

4 Jess buys sweets for her shop at a wholesalers.
On Tuesday Jess sees sweets with a price of $£ 147.65$
The price does not include VAT.
Jess wants to estimate the total cost including VAT. VAT is $20 \%$

Work out an estimate for the total cost of these sweets.
You must show your working.

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Please check the examination details below before entering your candidate information


Set 8


## Mathematics

## Level 1

Section B (Calculator)


## You must have:

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

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

## Signature:

$\qquad$

## 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 be used.
- If your calculator does not have a $\pi$ button take the value of $\pi$ to be 3.14


## Information

- The total mark for this section is 42 .
- The total mark for this paper is 56 .
- 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 $\sqrt{ }$ 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.



## SECTION B

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

1 Russell wants to hire a cement mixer.
He uses this formula to work out the total cost.


Russell wants to hire the mixer for 4 weeks.
He thinks the total cost will be less than $£ 100$

Is Russell correct?
Show why you think this.


2
(a) Rob throws a fair coin once.

Write down the probability the coin lands on Heads.

(b) Write the following numbers in order. Start with the smallest number.

$$
\begin{array}{lllll}
0.4 & 0.31 & 0.371 & 0.130 & 0.38
\end{array}
$$



Here are two mixed numbers $7 \frac{3}{10}$ and $7 \frac{2}{5}$
(c) Which of these two mixed numbers is greater?

Show why you think this.

(Total for Question $\mathbf{2}$ is $\mathbf{4}$ marks)

3 Mo has 5 hens in his garden.
12 kg of hen food costs $£ 10.50$
Mo knows 1 hen needs 150 g of this food each day.

Work out the cost of this food for the 5 hens for one day.
Give your answer to the nearest penny.

$\square$

4 Nazrin uses an app to record her sleep quality score.
She has this information for last week.

|  | Mon | Tues | Wed | Thu | Fri | Sat | Sun |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| sleep quality <br> score | 88 | 80 | 69 | 73 | 75 | 81 | 85 |

Nazrin thinks the range of her sleep quality scores for last week is less than 20
(a) Is Nazrin correct? Show why you think this.
$\square$
(b) Show a check of your answer.

5 Here is some information about the test scores of forty students.

| test score | $\mathbf{0}$ to $\mathbf{1 0}$ | $\mathbf{1 1}$ to $\mathbf{2 0}$ | $\mathbf{2 1}$ to $\mathbf{3 0}$ | $\mathbf{3 1}$ to $\mathbf{4 0}$ |
| :---: | :---: | :---: | :---: | :---: |
| number of students | 7 | 15 | 10 | 8 |

On the grid below draw a bar chart for this information.


6 Steph wants to cover part of her garden with paving blocks.
The diagram shows the part of the garden she will cover with blocks.
The shape of this part of the garden has one line of symmetry.
All corners are right angles.


Paving blocks are sold in packs.
Each pack covers $10 \mathrm{~m}^{2}$
Blocks can be cut and joined.
Work out the number of packs Steph needs to cover this part of her garden. You must show your working.

$\square$

7 Kofi works in a snack kiosk.
Kofi has the following information about 90 items he sold yesterday.

| item | number of sales |
| :---: | :---: |
| ice creams | 34 |
| hot drinks | 12 |
| lollies |  |

Kofi wants to draw a pie chart to display this information outside the kiosk.

Work out the size of the angle needed to represent the sales of lollies.


8 Dionne sells comics online.
On Tuesday there were 56 orders from customers.
$\frac{3}{8}$ of the customers used vouchers when they paid for their orders.
Dionne thinks 23 of the customers on Tuesday used a voucher.

Is Dionne correct?
Show why you think this.


9 Here is an accurate net of a cube drawn on a centimetre grid.

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Work out the volume of the cube.
Remember to state your units.

(Total for Question 9 is 4 marks)

10 Charlie is planning a new room in a hotel.
He has a diagram of the room drawn on a grid.
Charlie needs to show a space for the wardrobe.
The space for the wardrobe must

- be rectangular in shape 1.5 m by 0.75 m
- have the longest side against a wall
- be at least 2 m away from the doors
- be at least $2 m$ away from the bed.

Draw a space for the wardrobe on the grid below.
window


Key 1 cm on the grid represents 50 cm in the hotel room
wall
(Total for Question 10 is $\mathbf{3}$ marks)

11
(a) Write seventy percent in figures and symbols.


Ahmed works in a museum.
Last year there were six hundred and eighty thousand visitors to the museum.
This year the museum was closed for three months.
Ahmed expects the number of visitors to be $25 \%$ less this year than last year.
(b) Work out the number of visitors Ahmed expects this year.

$\square$
(Total for Question 11 is $\mathbf{5}$ marks)

TOTAL FOR SECTION B IS 42 MARKS TOTAL FOR PAPER IS 56 MARKS

