Please check the examination details below before entering your candidate information
 Set 9


## 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 $\sqrt{ }$ 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 A

Answer ALL questions. Write your answers in the spaces provided.
1
(a) Work out $35^{2}$

(b) Write 325 grams in kilograms.

2 Carla needs to fill her car with diesel.
She sees the price of diesel in a service station.
Diesel
160p per litre
(a) Write the price of diesel in pounds.

Carla needs to buy 30 litres of diesel.
Diesel 160p per litre

She has $£ 40$
(b) Does Carla have enough money to buy 30 litres of diesel?


3 Keira wants to be an apprentice.
She wants to apply to the company that has the greatest number of apprentices.
Company A has 80 employees.
$20 \%$ of the employees are apprentices.
Company B has 300 employees.
$5 \%$ of the employees are apprentices.
(a) Which company has the greatest number of apprentices?

(b) Use a reverse calculation to show a check of your answer.


4 The distance between Calais and Nice is 1195 km.
(a) Write 1195 in words.

3 friends will drive a total distance of 1225.3 km .
They will share the driving equally.
They estimate each person will drive 295 km .
(b) Use estimation to work out if each person will drive 295 km . You must show your working.

(Total for Question 4 is 4 marks)

TOTAL FOR SECTION A IS 14 MARKS
$\qquad$

## BLANK PAGE

Please check the examination details below before entering your candidate information


## Set 9



## You must have:

Total Marks
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 $\backslash$ 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 Marlene competes in sprint races. She wants to qualify to race in a team.

Here are the times, in seconds, of her last 4 races.

$$
\begin{array}{llll}
24.99 & 23.07 & 23.7 & 24.54
\end{array}
$$

Marlene needs the mean time of her last 4 races to be less than 23.9 seconds to qualify.

Is the mean time of her last 4 races less than 23.9 seconds?


2 Rio has a mobile car wash business.
He has a tank for water in his van.
The tank is in the shape of a cuboid 0.9 m wide and 0.9 m long. When full, the water in the tank is 0.4 m deep.

Rio uses 45 litres of water to wash each car.
$1 \mathrm{~m}^{3}=1000$ litres
Rio thinks there is enough water in a full tank to wash 8 cars.

Is Rio correct?
Show why you think this.

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

3 Ella is making a path around three sides of her lawn.
The lawn is in the shape of a rectangle.
The width of the path will be 1.2 m
All corners on the path are right angles.


Ella will cover the path with gravel.
Gravel is sold in bags.
Each bag of gravel covers $3 \mathrm{~m}^{2}$

Work out the number of bags of gravel Ella needs to buy to cover the path.
$\square$

4 Colin wants to buy a new television.
He sees this offer.
Television
Normal price $£ 599$
Now 35\% off the normal price

Colin uses the offer.

Work out the price of the television using the offer.

5 Jessica wants to sell her house.
She has this information about the selling prices of houses in her street.

$$
£ 199000 £ 195500 \quad £ 225550 \quad £ 190995 \quad £ 229000
$$

Jessica thinks the range of these selling prices is more than $£ 35000$
(a) Is Jessica correct?

Show why you think this.
$\square$
$\sqrt{\text { (b) Show a check of your answer. }}$

6
(a) Write $35 \%$ as a decimal.


(Total for Question 6 is 6 marks)

7 Here is a cuboid.


Draw a net of the cuboid.
Use the centimetre grid below to draw your net.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

(Total for Question 7 is $\mathbf{3}$ marks)

8 Layla buys a box of doughnuts.
Each doughnut is filled with either jam or apple or chocolate.
In the box there are

- 7 jam doughnuts
- 15 apple doughnuts
- 18 chocolate doughnuts.

Layla opens the box and picks a doughnut at random.
(a) What is the probability that Layla picks a jam doughnut?


The probability that a person does not like doughnuts is $\frac{1}{10}$
(b) Which of these words describes this probability?

Tick [ $\checkmark$ ] a box to show your answer.
[ ] impossible
[ ] unlikely
[ ] even
[ ] likely
[ ] certain

9 Here is a regular hexagon.

(a) Calculate the perimeter of this hexagon.

(b) Draw a line of symmetry on this equilateral triangle.


Here is a polygon.
One angle is labelled with the letter $x$.

(c) Select the word that describes the angle labelled with the letter $x$.

Tick [ $\checkmark$ ] a box to show your answer.
[ ] acute
[ ] obtuse
[ ] reflex
[ ] right
[ ] opposite

10 Marlon is doing a survey about exercise.
He asks 100 people how many times a week they exercise.
The results are shown in the table.

| number of times | number of people |
| :---: | :---: |
| 0 to 1 | 10 |
| 2 to 3 | 64 |
| 4 to 5 | 18 |
| 6 to 7 | 8 |

Marlon wants to show this information on a graph.

Draw a suitable graph for Marlon.


11 Jon is tiling a swimming pool.
He needs to buy 120 boxes of tiles in total.
He buys boxes of blue tiles and boxes of white tiles in the ratio $1: 4$
Each box of blue tiles costs $£ 23.99$
Each box of white tiles costs $£ 16.75$

Work out the total cost of all the tiles Jon needs.
You must show your working.

