

## ***Past Paper 10***



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 $\pi$ 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 $\checkmark$ 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 Samira reads the results of a holiday survey.

We asked 860 people about their holidays.
15\% of these people said that Greece was their favourite holiday destination.

Samira thinks that more than 100 people said that Greece was their favourite holiday destination.

Is she correct?
You must show your working.


2 Norbert is a doctor.
He starts his first shift of the week on Monday at 8 pm .
The shift lasts 12 hours.
Norbert then has 30 hours off work.
He then starts his second shift of the week.
Work out the day and time Norbert starts his second shift of the week.

Day:

Time:
(Total for Question $\mathbf{2}$ is $\mathbf{3}$ marks)

3 Here are some numbers．

| 147 | 116 | 213 | 394 | 178 | 312 |
| :--- | :--- | :--- | :--- | :--- | :--- |

（a）Work out the range of these numbers．

（b）Round 4.749 to 1 decimal place．

（c）Convert 0.9 kilogram into grams．

4 Zac is a hotel manager.
He knows that 3 out of every 5 guests usually order room service on a Saturday.
There are 624 guests staying at the hotel this Saturday.
(a) Use estimation to work out the number of guests Zac expects to order room service this Saturday. You must show your working.
(b) Use a reverse calculation to show a check of your answer.

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



## ***Past Paper 10***



## 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.

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- 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.


DO NOT USE FOR LIVE EXAMS

## SECTION B

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

1 Inka looks at the performance reports for 2020 from three companies．
Company A made three quarters of a million pounds profit．
Company B made $£ 648900$ profit．
Company C made seven hundred and twenty－five thousand pounds profit．
（a）Which company made the most profit in 2020？
Show why you think this．


Here are some numbers．

$$
2.89
$$

2.39
3.09
2.41
2.9
（b）Write these numbers in order of size．
Start with the smallest number．

2 Alex and Seamus play golf.
Alex played 90 games of golf last year.
She won $60 \%$ of these games.
Seamus played 80 games of golf last year.
He won $55 \%$ of these games.
Alex thinks that last year she won 12 more games than Seamus did.

Is she correct?
Show why you think this.


3 Akeem wants to put wooden flooring in a room．
He has this sketch of the floor in the room．


Akeem will buy the wooden flooring in packs．
Each pack covers an area of $0.4 \mathrm{~m}^{2}$
Akeem can cut and join the flooring．
Work out the number of packs of wooden flooring Akeem needs to buy．


4 Jared has part of a map．

（a）Write down the bearing of the cave from the hostel． Remember to show the units．

（b）Mark this probability with a cross（ x ）on the scale below．


0

5 Jesse is the head of sport at a college.
He has data about the number of students studying sport for the five academic years.

| academic year | $15 / 16$ | $16 / 17$ | $17 / 18$ | $18 / 19$ | $19 / 20$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| number of students | 34 | 46 | 82 | 98 | 70 |

Jesse will show this data in a bar chart at a staff conference.
Draw a suitable bar chart for Jesse.

(Total for Question 5 is 3 marks)

6 Zelda works in a spa．
She takes care of the swimming pool．
The swimming pool is in the shape of a cuboid．
The water level in the swimming pool is 0.3 m below the top of the pool．


Zelda knows 1 m ${ }^{3}=1000$ litres．
She needs to put chlorine powder in the water．
Zelda uses this rule to work out how much chlorine powder she needs．


Work out how much chlorine powder Zelda needs to put in the water．


7 Tom looks at a map．
1 cm on the map represents 3 km on the ground．
The distance between two cities on the map is 5 cm ．
（a）Work out the actual distance between the two cities．
（b）How many lines of symmetry does a square have？


Here is the front elevation of a building．

（c）What is the greatest height of the building？
$\square$

8 Maya designs a flower bed．
She has this sketch of the flower bed．


Maya will put an edging along each side of the flower bed．
（a）Work out the total length of the edging Maya needs．

（b）Show a check of your answer．

9 Tim makes sandwiches in a cafe．
The sandwiches can only be sold on the day they are made．
The table shows the number of sandwiches Tim did not sell last week．

| day | Mon | Tue | Wed | Thu | Fri | Sat | Sun |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| number of sandwiches | 15 | 26 | 9 | 11 | 20 | 16 | 1 |

The cost of making each sandwich is $£ 1.95$
Tim thinks the mean cost of making the sandwiches he did not sell last week was more than $£ 25$ per day．

Is he correct？
Show why you think this．


10 Colin has this data about the number of treadmills in several gyms.

| 6 | 11 | 5 | 12 | 7 | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13 | 4 | 8 | 10 | 12 | 14 |

Colin begins to design a grouped frequency table to show this data.
He will use 3 groups of equal size.

Complete the grouped frequency table for Colin.

| number of treadmills | tally | frequency |
| :---: | :--- | :--- |
| 1 to 5 |  |  |
|  |  |  |
|  |  |  |

11 Ashley wants to a buy a wall clock． She finds these two offers．


Ashley thinks she will save less than 50 p if she uses offer B rather than offer $A$ ．

Is Ashley correct？
Show why you think this．


