Write your name here


## Mathematics

 Paper 1 (Non-Calculator) Achieving a Grade 1 <br> \section*{\title{Spring 2023 Practice Paper <br> \section*{\title{
Spring 2023 Practice Paper 30 marks
}} 30 marks
}}

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You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.
Tracing paper may be used.
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r as
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Total Marks
You must have: Ruler graduated in centimetres and millimetres,
protractor, pair of compasses, pen, HB pencil, eraser.
Tracing paper may be used.

## 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.
- Answer all questions.
- Answer the questions in the spaces provided
- there may be more space than you need.
- You must show all your working.
- Diagrams are NOT accurately drawn, unless otherwise indicated.

- Calculators may not be used.


## Information

- The total mark for this paper is 30 . There are 21 questions.
- Questions have been arranged in an ascending order of mean difficulty, as found by students achieving Grade 1 in the Summer and November 2022 examinations.
- Questions marked with an asterisk (*) also appear on the Higher Tier paper.
- The marks for each question are shown in brackets - use this as a guide as to how much time to spend on each question.


## Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.


## Answer ALL TWENTY ONE questions.

## Write your answers in the spaces provided.

You must write down all the stages in your working.

1 Here is a sequence of patterns made from grey square tiles.


Complete the table.

Pattern
number 2

Pattern
number 3

Pattern
number 4

| Pattern number | 1 | 2 | 3 | 4 | 5 | $6^{6}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of squares | 1 | 3 | 5 | 7 | 9 | 11 |

Whats the difference? whats the difference?
(Total for Question 1 is 1 marks)

2 The bar chart shows information about the total rainfall each month for four months in a city.
check the
scale carefully.

Total rainfall (cm)


In May, the total rainfall was 35 cm . In June, the total rainfall was 20 cm .

Use this information to complete the bar chart.

3 The pictogram gives information about the number of hours of sunshine on a Saturday and on a Sunday.


Work out the number of hours of sunshine on Saturday.

$$
2+2+2+2
$$

$\qquad$

4 Here is a list of 8 letters.
B
C A
A
A
A
B
${ }^{\text {A }}$

Write down the mode.


## $A$

5 Here is a sequence of patterns made from grey square tiles.


Pattern number 1

Pattern
number 2

Pattern
number 3

Pattern number 4

On the grid below, draw Pattern number 5


6 Work out $20 \div(3+2)$

$$
\begin{equation*}
3+2=5 \quad 20 \div 5=4 \tag{4}
\end{equation*}
$$

7 A shop sells jars of coffee.
Each jar of coffee costs $£ 4$
Michael has $£ 23$
Work out the greatest number of jars of coffee Michael can buy.

$$
\begin{aligned}
& \begin{array}{l}
1 j o s=4 \\
5 j a s \\
520^{l}
\end{array} \\
& 6 \text { os }=f 24 \times \text { not enough } £
\end{aligned}
$$

8 On the grid, reflect the shaded triangle in the mirror line.

(Total for Question 8 is $\mathbf{1}$ mark)

9 Work out $3^{2}$

$$
\begin{aligned}
& 3 \times 3=9 \\
& (\text { not } 3 \times 2)
\end{aligned}
$$


(Total for Question 9 is 1 mark)

10 Solve $m-3=4$

$$
\begin{aligned}
m-3 & =4 \\
+3 & +3 \\
m & =7
\end{aligned}
$$

$$
m=\ldots 7
$$

(Total for Question 10 is 1 mark)
11 Simon buys some candles.
Each candle costs $£ 2$
Simon pays with a $£ 20$ note.
He gets $£ 6$ change.
Work out the number of candles Simon buys.

$$
\begin{aligned}
& \text { Spends } 20-6=£ 14 \\
& £ 14 \div £ 2=7 \text { so } 7 \text { candles }
\end{aligned}
$$

$\qquad$
(Total for Question 11 is $\mathbf{3}$ marks)

1272 people did a test.
20 of the 32 adults who did the test passed. 6 of the children who did the test failed.

Use this information to complete the frequency tree.

(Total for Question 12 is $\mathbf{3}$ marks)
13 Fay is planning a trip to a theme park for 1 adult and 2 children.
These are the costs for the trip.
Total cost of petrol $£ 23$
Tickets to theme park $£ 33$ each adult $£ 24.50$ each child
Meals $£ 15$ each adult $£ 10$ each child
Fay has $£ 200$ to spend. She pays all the costs.
How much money does she have left?
SPENDS Petrol $=23$

$$
\begin{aligned}
& \text { Tickets }=33+24.50+24.50=182 \\
& \text { meals }=18+10+10=35
\end{aligned}
$$

Total $=23+82+35=140$
Lett $200-140=60$
$\mathcal{L}$. $\qquad$

14 The composite bar chart shows information about the number of people living in a village.


Write down the number of men living in the village in the year 2000

60
(Total for Question 14 is 1 mark)
15 Write down the value of the 6 in the number 16007
6000
(Total for Question 15 is 1 mark)
16 Write down a factor of 60 that is between 8 and 14
1,60
4,15
2,30
5,12
3,20
6,10
10 or 12 $\qquad$
(Total for Question 16 is 1 mark)
17 Write 0.3 as a fraction.
$0 \cdot 1=\frac{1}{10}$
so $0.3=\frac{3}{10}$

$\frac{3}{10}$
or eqwualent
(Total for Question 17 is 1 mark)
.- Le
(Total for Question 18 is 1 mark)
19 Simplify $3 \times w \times 5 \times t$

$$
3 \times 5 \times \omega \times t \quad 1.5 \omega t \quad \text { (or } 1 \delta t \omega)
$$

## (Total for Question 19 is 1 mark)

20 Change 40 centimetres into millimetres.

$$
\begin{aligned}
& 1 \mathrm{~cm}=10 \mathrm{~mm} \\
& 40 \mathrm{~cm}=400
\end{aligned}
$$

21 Here is a list of 8 letters.

$$
\begin{array}{llllllll}
\text { B } & \text { C } & \text { A } & \text { A } & \text { A } & \text { A } & \text { B } & \text { A }
\end{array}
$$

Find the probability that this letter will be C.

(Total for Question 21 is 1 mark)

