Name

Candidate Number

Room Number

WITHINGTON GIRLS' SCHOOL

ENTRANCE EXAMINATION 2020

MATHEMATICS

PAPER 1

TIME: 30 MINUTES

- Try to answer all the questions.

- Write your working and your answer in the space provided after each question.

- If you cannot answer a question, leave it and go on to the next one.

- Use any time you have left to check your answers and go back to any questions you have left out.

CALCULATORS MUST NOT BE USED

PAPER 1 TOTAL	
Marker's Initials	
Checker's Initials	

1.   Work out $342 + 469$

_____

1

2.   Work out $527 - 382$

_____

1

3.   Work out 73×42

_____

1

4.   Work out $2616 \div 6$

_____

1

5.   Round 14 575 to the nearest 100

_____

1

6.   Work out $84 \cdot 8 \div 400$

_____

1

7.   Write down the next number in this sequence:

$$5, \ 11, \ 17, \ 23, \ 29, \ 35, \ 41, \ \ldots\ldots$$

_____   1

8.   Write down all the factors of 12

_____   1

9.   Fill in the box.

$$4 \times \boxed{} - 3 = 65$$

1

10.   Aria's dog eats 15 kg of dog food each week.
How many kilograms of dog food would Aria need to buy to feed her dog for 26 weeks?

_____kg   1

Section B

In this section any fractions should be written in their **<u>simplest form.</u>**
For example, $\frac{1}{4}$ is simpler than $\frac{2}{8}$ and the mixed number $1\frac{1}{4}$ is simpler than $\frac{5}{4}$.

1. Work out $3\frac{1}{5} + 4\frac{4}{15}$ _____	2. Work out $9\frac{3}{4} - 1\frac{4}{5}$ _____
3. Write $\frac{48}{64}$ in its simplest form. _____	4. Work out $\frac{7}{8}$ of 32 _____
5. Work out $6\frac{1}{2} \div \frac{1}{4}$ _____	6. Work out 45% of 80 _____

7. Write the following numbers from smallest to largest.

$0{\cdot}631$ $\qquad$ $\frac{3}{5}$ $\qquad$ $\frac{3}{4}$ $\qquad$ $0{\cdot}609$

_____

8. Which is larger $\frac{4}{25}$ or $0{\cdot}17$?

_____

9. What number goes in the box?

$$\frac{\boxed{}}{9} \text{ of } 45 = 35$$

10. Savannah and Shaila shared some sweets in the ratio $5:6$. Shaila received 36 sweets.
How many sweets were there altogether?

_____

Margin marks: 1, 1, 1, 1, 1, 1, 1, 1, 1, 1

Section C

1. Change 736 cm into metres.

_____m

2. Work out $6 \cdot 6 + 13 \cdot 5$

_____

1

1

3. Which symbol goes in the box >, < or =?

$0 \cdot 15 \times 1000$ ☐ $800 \div 5$

4. Fill in the box.

$6 \cdot 23 -$ ☐ $= 5 \cdot 72$

1

1

5. Work out $32 \cdot 4 \times 20$

_____

6. A rectangle measures $4 \cdot 5$ cm by $6 \cdot 2$ cm. Calculate its perimeter.

_____cm

1

1

7. A television programme starts at 17:35 and finishes at 20:10.
How long does it last in hours and minutes?

Answer: _____hours_____minutes

1

8. Which number is halfway between $4 \cdot 6$ and $13 \cdot 8$?

_____

1

9. The temperature at midnight on Thursday was $-8°C$ and at midday on Friday was $13°C$.
What was the overall temperature change?

_____°C

1

10. A rectangle has an area of $19 \cdot 2$ cm². The length is $4 \cdot 8$cm. What is the width?

_____cm

1

Section D

In this section, write down the number that n stands for.

1. n is the number of millilitres in 1·7 litres.

   $n =$_____ | 1

2. n is the answer to $620 \div 20$

   $n =$_____ | 1

3. n is the number where $4 \times n + 3 = 55$

   $n =$_____ | 1

4. n is the answer to $4^2 \div 2$

   $n =$_____ | 1

5. n is the length of one side of an equilateral triangle with a perimeter of 42 cm.

   $n =$_____cm | 1

6. n is the missing number in the sequence

   $$96, \quad n, \quad 24, \quad 12, \quad 6$$

   $n =$_____ | 1

7. n is the number for which $3 \times n \times 6 = 72$

   $n =$_____ | 1

8. n is the smallest odd number that uses all the digits 2, 3, 5 and 6 only once.

   $n =$_____ | 1

9. n is the missing number.

   $$n \quad \rightarrow \quad \boxed{\times 4} \quad \rightarrow \quad \boxed{-32} \quad \rightarrow \quad 100$$

   $n =$_____ | 1

10. n is a number where $\frac{32}{n} = \frac{n}{2}$

    $n =$_____ | 1

PLEASE TURN OVER

Section E

1. The chart below shows the distance in miles between cities in the UK.
    For example the distance between Leeds and Nottingham is 70 miles (grey on the table below)

London								
220	Liverpool							
210	35	Manchester						
195	70	45	Leeds					
210	100	70	24	York				
400	220	220	220	210	Edinburgh			
125	100	90	120	130	290	Birmingham		
130	110	80	70	85	280	51	Nottingham	
150	180	190	230	240	390	110	160	Cardiff

(a) How far is it from Liverpool to Birmingham?

_____miles

1
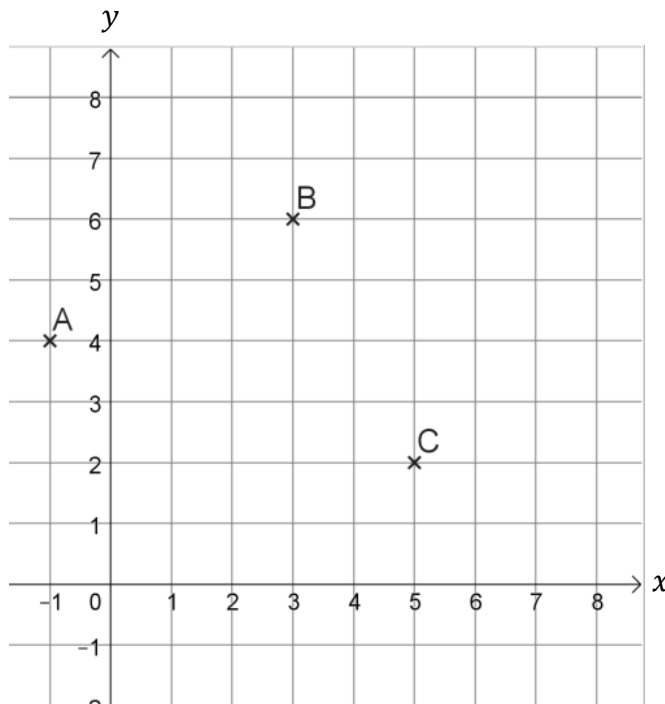
(b) Which two cities are 240 miles apart?

_____and _____

1

(c) Calculate the total length of a trip from London to Cardiff to Leeds

_____miles

1

(d) Which city on the chart is closest to York?

_____

1

2.

(a) Write down the coordinates of the point B.

(____,____)

1

(b) ABCD is a square. On the grid, mark with a cross (×) the point D.

1

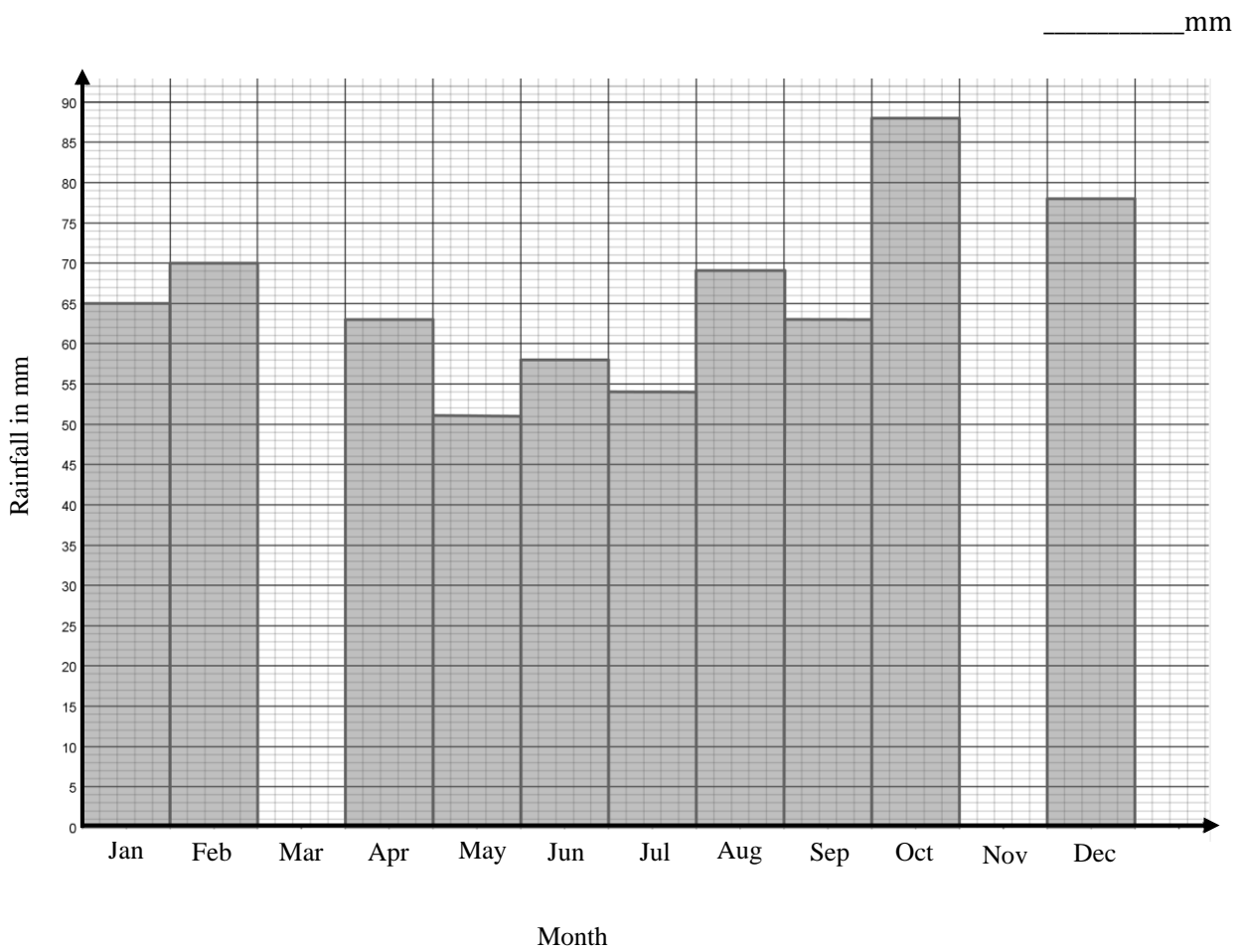(c) Write down the coordinate of the midpoint of AC.

(____,____)

1

3.   The rainfall in millimetres for Stockport in 2015 is shown in the table

Month	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	65	70	50	63	51	58	54	69		88	82	78

1

(a)   Complete the bars for March and November

(b)   Complete the table for September

(c)   What is the difference in rainfall between May and June?

_____mm   1

1

1

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