Cambridge IGCSE

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

4041975834

MATHEMATICS **0580/13**

Paper 1 (Core) **October/November 2018**

1 hour

Candidates answer on the Question Paper.

Additional Materials: Electronic calculator
Tracing paper (optional)
Geometrical instruments

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.
Write in dark blue or black pen.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.
DO **NOT** WRITE IN ANY BARCODES.

Answer **all** questions.
If working is needed for any question it must be shown below that question.
Electronic calculators should be used.
If the degree of accuracy is not specified in the question, and if the answer is not exact, give the answer to three significant figures. Give answers in degrees to one decimal place.
For π, use either your calculator value or 3.142.

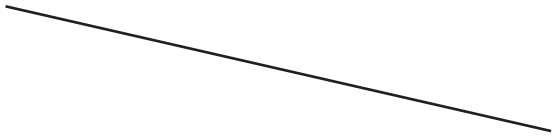
At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.
The total of the marks for this paper is 56.

This document consists of **8** printed pages.

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1 Measure the length of this line in centimetres.



..... cm [1]

2 Work out $\frac{7}{11}$ of 198 kg.

..... kg [1]

3 Work out \$1.45 as a percentage of \$72.50 .

..... % [1]

4 Calculate.

$$\frac{5.39-0.98}{0.743-0.0743}$$

.....[1]

5 Factorise.

$$y-2y^2$$

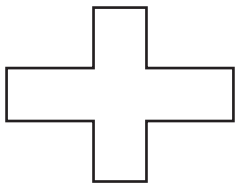
.....[1]

6 Work out $\begin{pmatrix}2\\5\end{pmatrix}-\begin{pmatrix}-3\\4\end{pmatrix}$.

$\begin{pmatrix}\quad\\\quad\end{pmatrix}$ [1]

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7



On the shape, draw all the lines of symmetry. [2]

8 Share \$72 in the ratio 5 : 4.

\$ ..... , \$ ..... [2]

9 **(a)** At noon on Wednesday, the temperature was 5 °C.
At midnight, the temperature was 8 °C lower.

Work out the temperature at midnight.

..... °C [1]

(b) At noon on Saturday, the temperature was 15 °C.
At midnight, the temperature was –3 °C.

Work out the difference in these temperatures.

..... °C [1]

10 Simplify.

$2p - q - 3q - 5p$

..... [2]

11 Write these numbers correct to 2 significant figures.

(a) 0.076 499

..... [1]

(b) 10 100

..... [1]

12 **Without using a calculator**, work out $\frac{1}{4} \div \frac{2}{3}$.

You must show all your working and give your answer as a fraction.

..... [2]

13 **(a)** Write the number five million, two hundred and seven in figures.

..... [1]

(b) Write 0.008 13 in standard form.

..... [1]

14 Write down all the factors of 30.

..... [2]

15 Ethan has a box of toys.
He takes a toy at random.

Toy	Car	Train	Bus	Other
Probability	0.2	0.45		0.08

Complete the table. [2]

16 For the line $y = 4x - 6$, write down

(a) the gradient,

..... [1]

(b) the y-intercept.

..... [1]

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17 The mass, m kilograms, of Katy's suitcase is 31 kg, correct to the nearest kilogram.

Complete the statement about the value of m.

..... $\leqslant m <$ ..... [2]

18

16 7 23 18 73 20 95 17 89 54

For this list of numbers, find

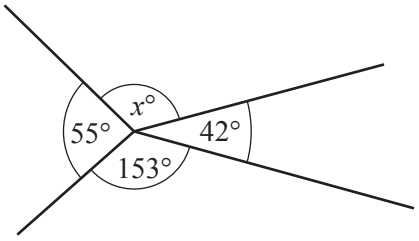
(a) the median,

..... [2]

(b) the range.

..... [1]

19 (a)

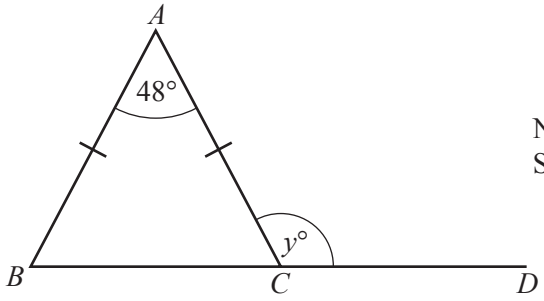


NOT TO SCALE

Find the value of x.

$x =$ ..... [1]

(b)



NOT TO SCALE

ABC is an isosceles triangle and BCD is a straight line.

Find the value of y.

$y =$ ..... [2]

20 Work out the size of an interior angle of a regular 20-sided polygon.

..... [3]

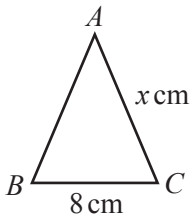
21 The table shows the number of pets owned by each of the 95 students in a school.

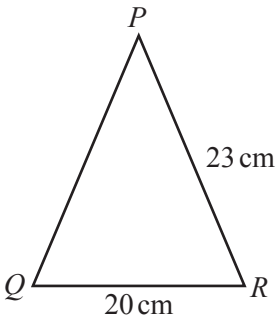
Number of pets	Frequency
0	5
1	14
2	39
3	14
4	23

Calculate the mean number of pets.

..... [3]

22





NOT TO SCALE

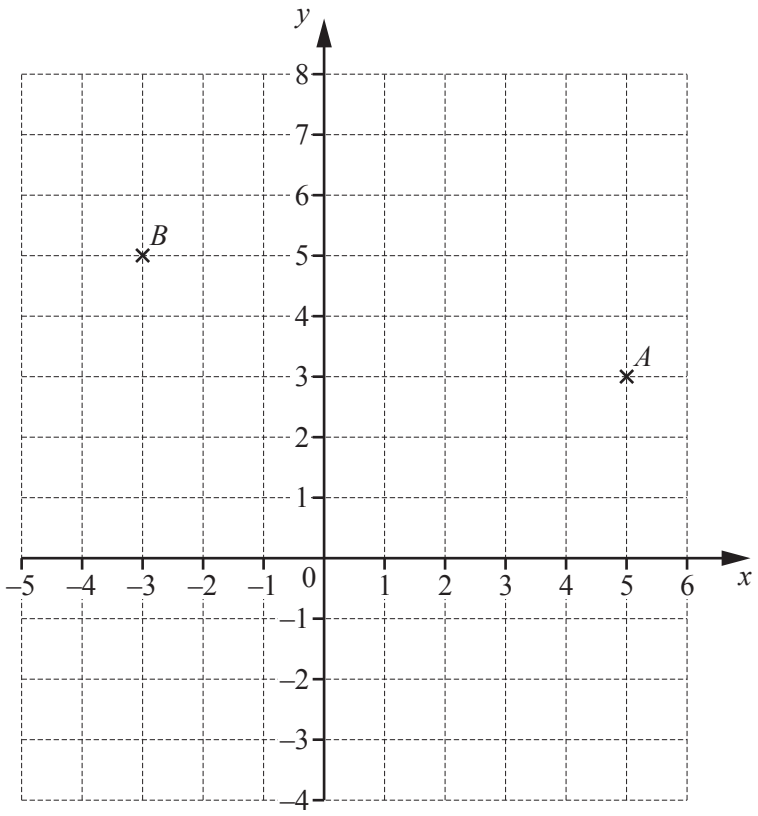
Triangle ABC is similar to triangle PQR.

Find the value of x.

$x =$ ..... [2]

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23



(a) Write down the co-ordinates of point A.

(..... , ...) [1]

(b) Plot the point C at (4, −3). [1]

(c) Find the vector $\overrightarrow{AB}$.

$\overrightarrow{AB} = \begin{pmatrix} \quad \\ \quad \end{pmatrix}$ [1]

Questions 24, 25 and 26 are printed on the next page.

24 A car travels at 108 km/h for 20 seconds.

Calculate the distance the car travels.
Give your answer in metres.

..... m [3]

25 Jo invests $5000 at a rate of 2% per year compound interest.

Calculate the value of her investment at the end of 3 years.

$ ..... [3]

26 Solve.

(a) $3w - 7 = 32$

$w =$ ..... [2]

(b) $4(5x + 7) = 42$

$x =$ ..... [3]

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