Cambridge IGCSE

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

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.

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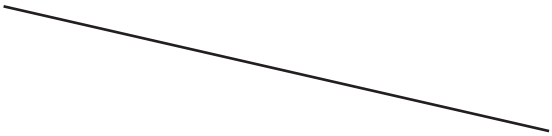
1 Measure the length of this line in centimetres.



View solution

..... cm [1]

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

View solution

..... kg [1]

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

View solution

..... % [1]

4 Calculate.

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

View solution

.....[1]

5 Factorise.

$$y-2y^2$$

View solution

.....[1]

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

View solution

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

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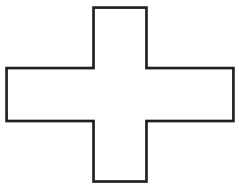
7



View solution

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

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

View solution

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

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

View solution

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.

View solution

Work out the difference in these temperatures.

..... °C [1]

10 Simplify.

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

View solution

..... [2]

11 Write these numbers correct to 2 significant figures.

(a) 0.076 499

View solution

..... [1]

(b) 10 100

..... [1]

View solution

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

View solution

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.

View solution

..... [1]

(b) Write 0.008 13 in standard form.

View solution

..... [1]

14 Write down all the factors of 30.

View solution

..... [2]

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

View solution

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,

View solution

..... [1]

(b) the y-intercept.

..... [1]

View solution

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

View solution

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,

View solution

..... [2]

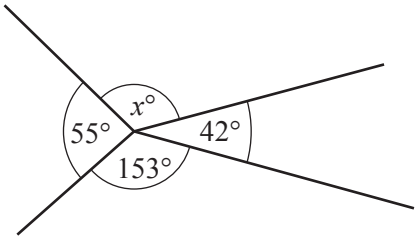
(b) the range.

View solution

..... [1]

19 (a)

View solution



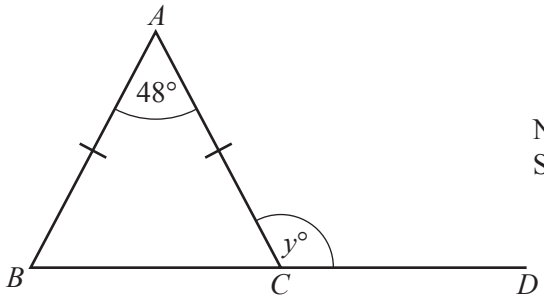
NOT TO SCALE

Find the value of x.

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

(b)

View solution



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.

View solution

..... [3]

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

View solution

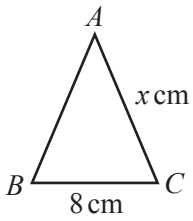
Number of pets	Frequency
0	5
1	14
2	39
3	14
4	23

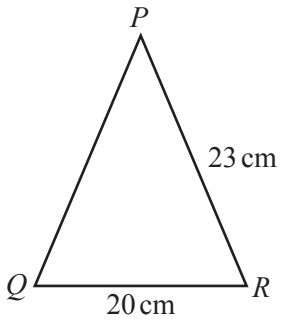
Calculate the mean number of pets.

..... [3]

22

View solution





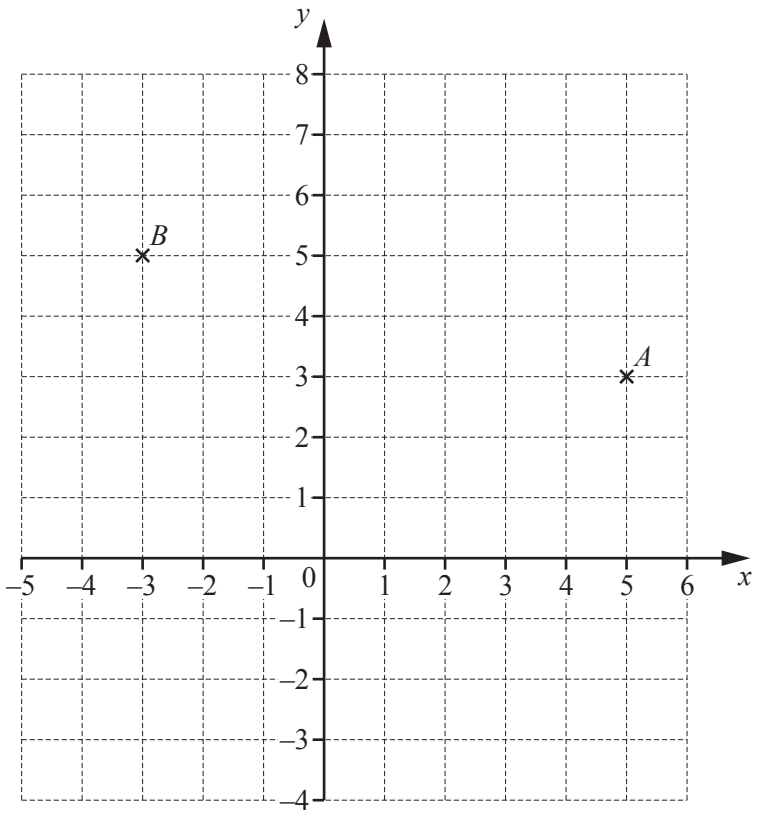
NOT TO SCALE

Triangle ABC is similar to triangle PQR.

Find the value of x.

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

23



View solution

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

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

View solution

(b) Plot the point C at (4, −3). [1]

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

View solution

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

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

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

View solution

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.

View solution

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

$ ..... [3]

26 Solve.

(a) $3w - 7 = 32$

View solution

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

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

View solution

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

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