Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

9293741267

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/11**

Paper 1 (Core) **May/June 2019**

45 minutes

Candidates answer on the Question Paper.

Additional Materials: 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.
Do not use staples, paper clips, glue or correction fluid.
You may use an HB pencil for any diagrams or graphs.
DO **NOT** WRITE IN ANY BARCODES.

Answer **all** the questions.
CALCULATORS MUST NOT BE USED IN THIS PAPER.
All answers should be given in their simplest form.
You must show all the relevant working to gain full marks and you will be given marks for correct methods even if your answer is incorrect.
The number of marks is given in brackets [ ] at the end of each question or part question.
The total number of marks for this paper is 40.

This document consists of **11** printed pages and **1** blank page.

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Formula List

Area, A, of triangle, base b, height h.	$A = \frac{1}{2}bh$
Area, A, of circle, radius r.	$A = \pi r^2$
Circumference, C, of circle, radius r.	$C = 2\pi r$
Curved surface area, A, of cylinder of radius r, height h.	$A = 2\pi rh$
Curved surface area, A, of cone of radius r, sloping edge l.	$A = \pi rl$
Curved surface area, A, of sphere of radius r.	$A = 4\pi r^2$
Volume, V, of prism, cross-sectional area A, length l.	$V = Al$
Volume, V, of pyramid, base area A, height h.	$V = \frac{1}{3}Ah$
Volume, V, of cylinder of radius r, height h.	$V = \pi r^2 h$
Volume, V, of cone of radius r, height h.	$V = \frac{1}{3}\pi r^2 h$
Volume, V, of sphere of radius r.	$V = \frac{4}{3}\pi r^3$

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Answer **all** the questions.

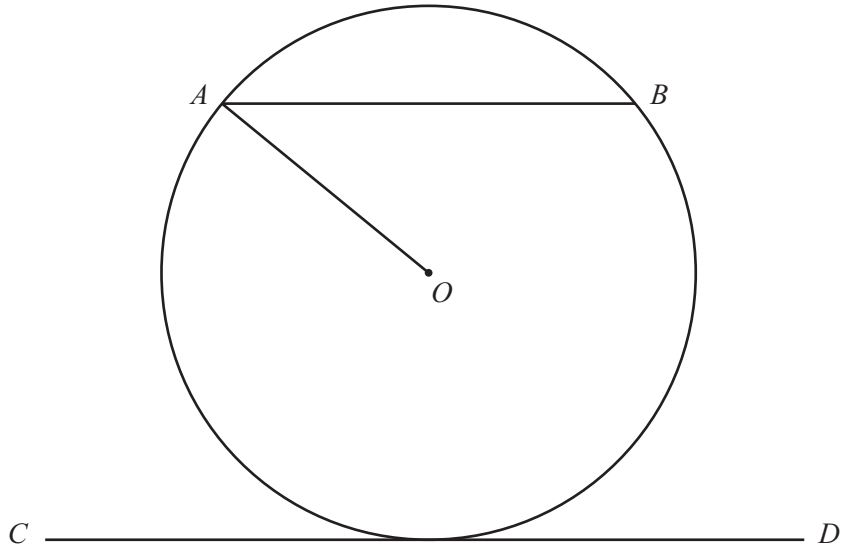
1 Write 36 247 correct to the nearest thousand.

..... [1]

2 Write down three multiples of 12.

....., ..., ... [1]

3



The diagram shows a circle centre O and three lines, OA, AB and CD.

Write down the line that is

(a) a chord,

..... [1]

(b) a tangent.

..... [1]

4 The cost, in dollars, of a taxi journey is

$$2 \times (\text{number of kilometres travelled}) + 10.$$

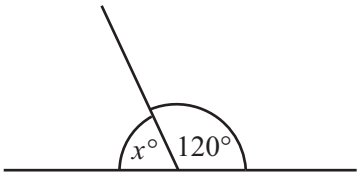
Find the cost of a taxi journey of 30 kilometres.

$ ..... [2]

5 Change 2.4 metres into millimetres.

..... mm [1]

6 **(a)**

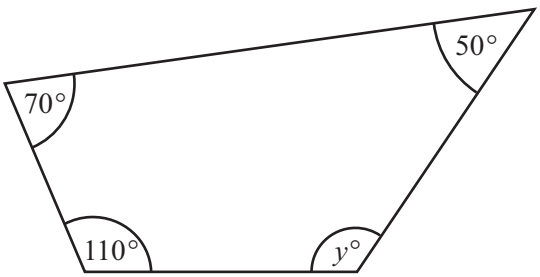


NOT TO SCALE

Find the value of x.

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

(b)



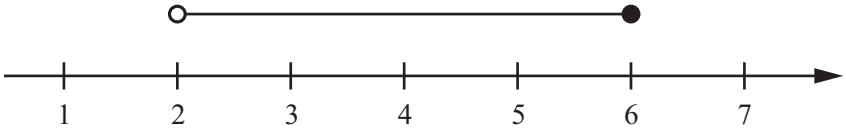
NOT TO SCALE

Find the value of y.

$y =$ ..... [1]

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7



Write down all the integers that satisfy the inequality shown on this number line.

..... [1]

8 **(a)** Work out $\frac{3}{8}$ of 16.

..... [1]

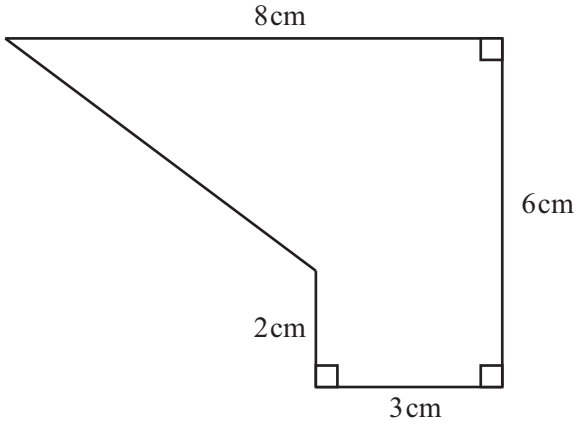
(b) Write $\frac{1}{20}$ as a percentage.

..... % [1]

(c) Write $\frac{1}{8}$ as a decimal.

..... [1]

9



NOT TO SCALE

Work out the area of this shape.

..... cm^2 [3]

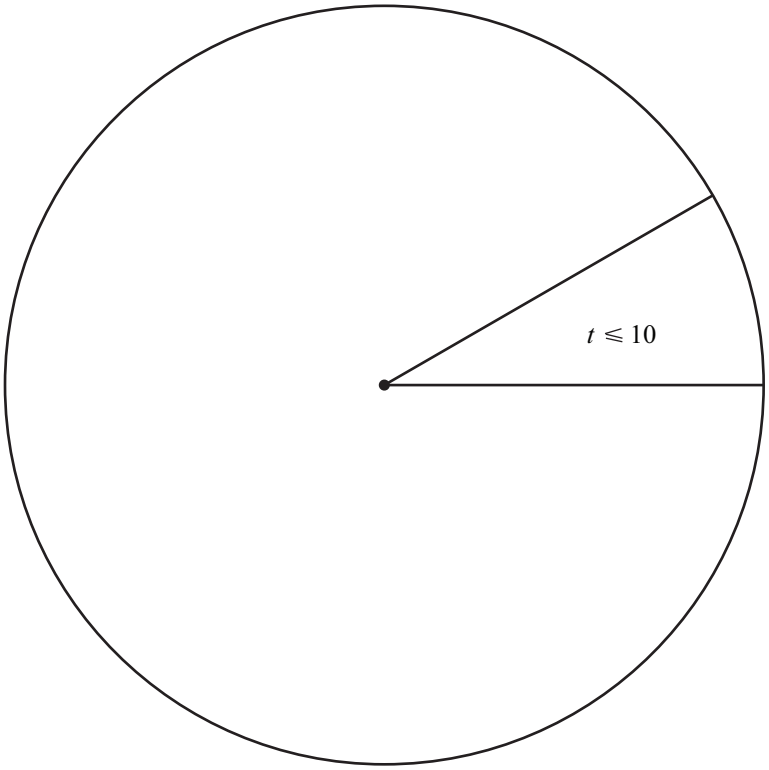
10 Huda is drawing a pie chart for the times, in minutes, that 60 students take to travel to school.

Time (t minutes)	Frequency	Angle (degrees)
$t \leqslant 10$	5	30
$10 < t \leqslant 15$	15	
$15 < t \leqslant 20$	10	
$t > 20$	30	

(a) Complete the table to show the sector angles in the pie chart.

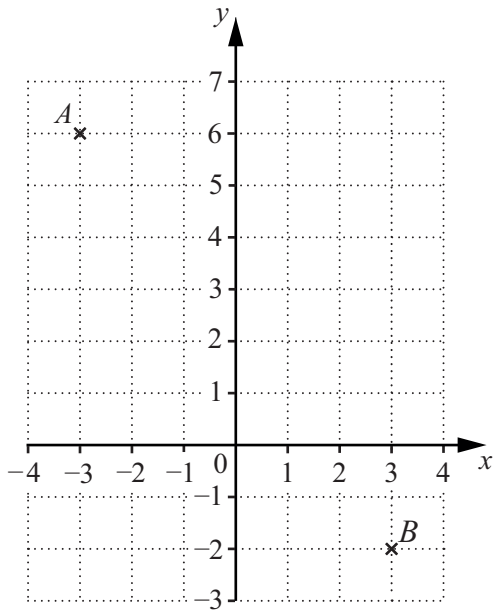
[2]

(b) Complete the pie chart to show this information.



[2]

11



A is the point (–3, 6) and B is the point (3, –2).

Find the co-ordinates of the midpoint of AB.

(..... , ...) [2]

12 Solve $2x < 8$.

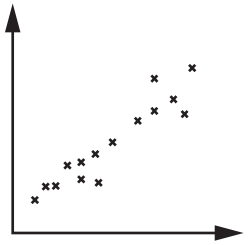
..... [1]

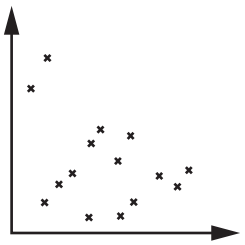
13 $2^7 = 128$

Find the value of 2^8.

..... [1]

14 Write down the type of correlation shown in each of these scatter diagrams.





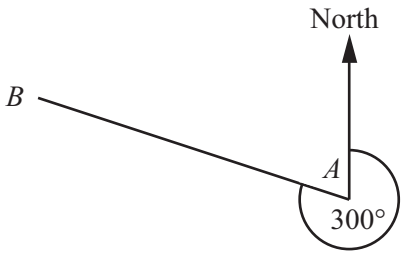
.... [2]

15 $f(x) = x^2 + 1$

Work out the values of x when $f(x) = 26$.

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

16



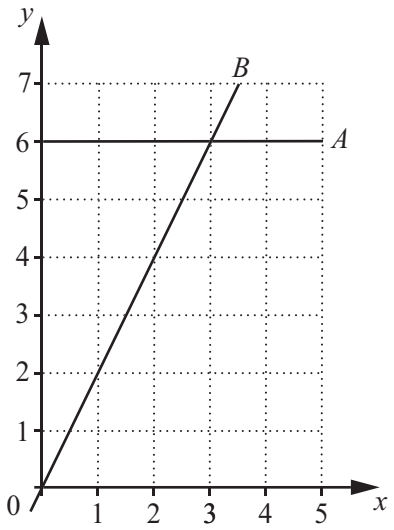
NOT TO SCALE

The bearing of B from A is 300°.

Find the bearing of A from B.

..... [2]

17



(a) Write down the equation of line A.

..... [1]

(b) Find the equation of line B.

..... [2]

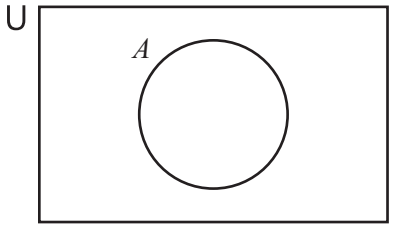
18 Solve the simultaneous equations.

$$x + y = 3$$
$$x - 4y = 13$$

$x =$ .....

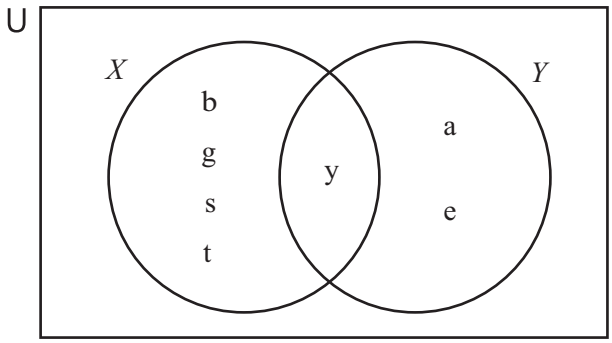
$y =$ ..... [2]

19 **(a)** On the Venn diagram shade the region represented by A'.



[1]

(b)



The Venn diagram shows two sets X and Y.
U = {a, b, e, g, s, t, y}

A letter is chosen at random.

Write down the probability that it is in set Y but not in set X.

..... [1]

20 A is the point (–3, 4) and B is the point (2, 2).

Find the vector $\overrightarrow{AB}$.

$\begin{pmatrix} \\ \end{pmatrix}$ [2]

21 The graph of $y = f(x)$ is translated by the vector $\begin{pmatrix} -2 \\ 0 \end{pmatrix}$.

Write down the equation of the new graph.

$y =$ ..... [1]

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