EXAMINATIONS COUNCIL OF ESWATINI
Eswatini General Certificate of Secondary Education

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

MATHEMATICS **6880/02**

Paper 2 Structured Questions (Core) **October/November 2025**

2 hours

Candidates answer on the Question Paper.

Additional Materials: Scientific calculator
Geometrical Instruments

READ THESE INSTRUCTIONS FIRST

Write your centre number, candidate number and name in the spaces provided.
Write in dark blue or black pen.
You may use a soft pencil for any diagrams, graphs or rough working.
Do **not** use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

If working is needed for any question it must be shown below that question.
The number of marks is given in brackets [ ] at the end of each question or part question.

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.

The total of the marks for this paper is 90.

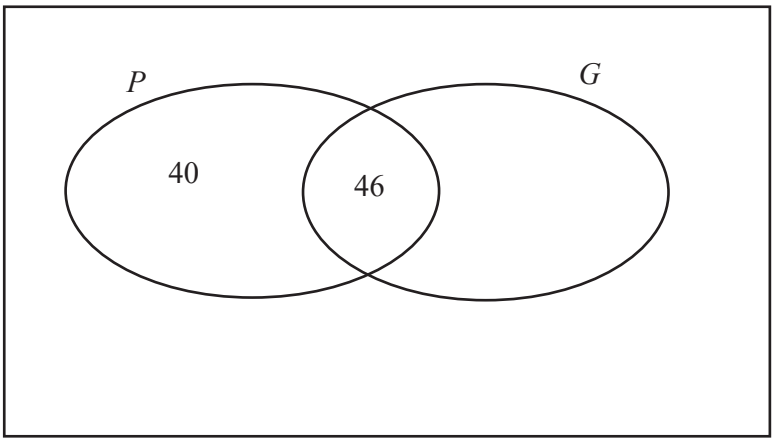
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This document consists of **15** printed pages and **1** blank page.

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1 **(a)** A form 5 class has 104 students.
60 students take Geography.
86 students take Physics.

The Venn diagram shows part of the information.
P = {Physics students}
G = {Geography students}



(i) Find the number of students who take Geography only.

Answer (a)(i) ..... [1]

(ii) Find the number of students who take neither Geography nor Physics.

Answer (a)(ii) ..... [1]

(iii) Find $n(P \cap G)'$

Answer (a)(iii) ..... [1]

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(b) $\mathscr{E} = \{1, 2, 3, 4, ..., 20\}$
$A = \{\text{Prime numbers}\}$
$B = \{\text{factors of } 60\}$

List members of

(i) A,

Answer (b)(i) ..... [2]

(ii) $A \cap B$,

Answer (b)(ii) ..... [1]

(iii) $A \cap B'$.

Answer (b)(iii) ..... [1]

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2 Write 6753

(a) to the nearest 100,

Answer (a) ..... [1]

(b) to 1 significant figure,

Answer (b) ..... [1]

(c) in standard form,

Answer (c) ..... [2]

(d) in words.

.....

..... [1]

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3 **(a)** Find 27% of E8600.

Answer (a) E ..... [2]

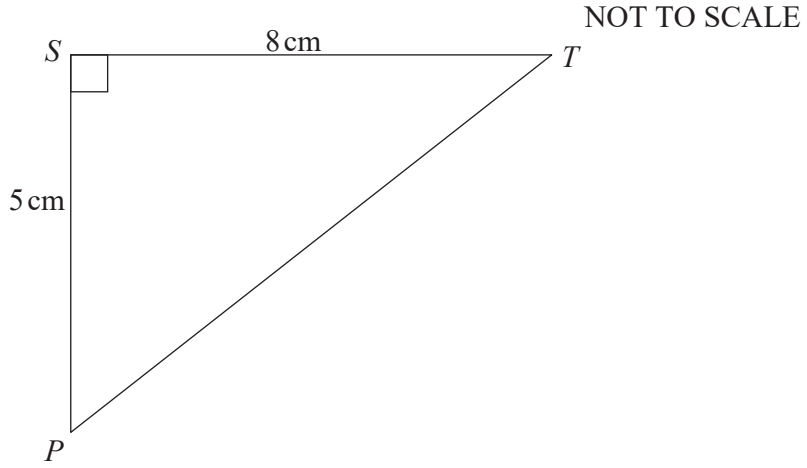
(b) Lombuso invests E3700 in a savings account.
The account pays 7% annual compound interest.

Calculate the total amount in the account at the end of 5 years.

Answer (b) E ..... [2]

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4 *PST* is a right angled triangle.



(a) Calculate the length of *PT*.

Answer (a) ..... cm [2]

(b) Calculate angle *STP*.

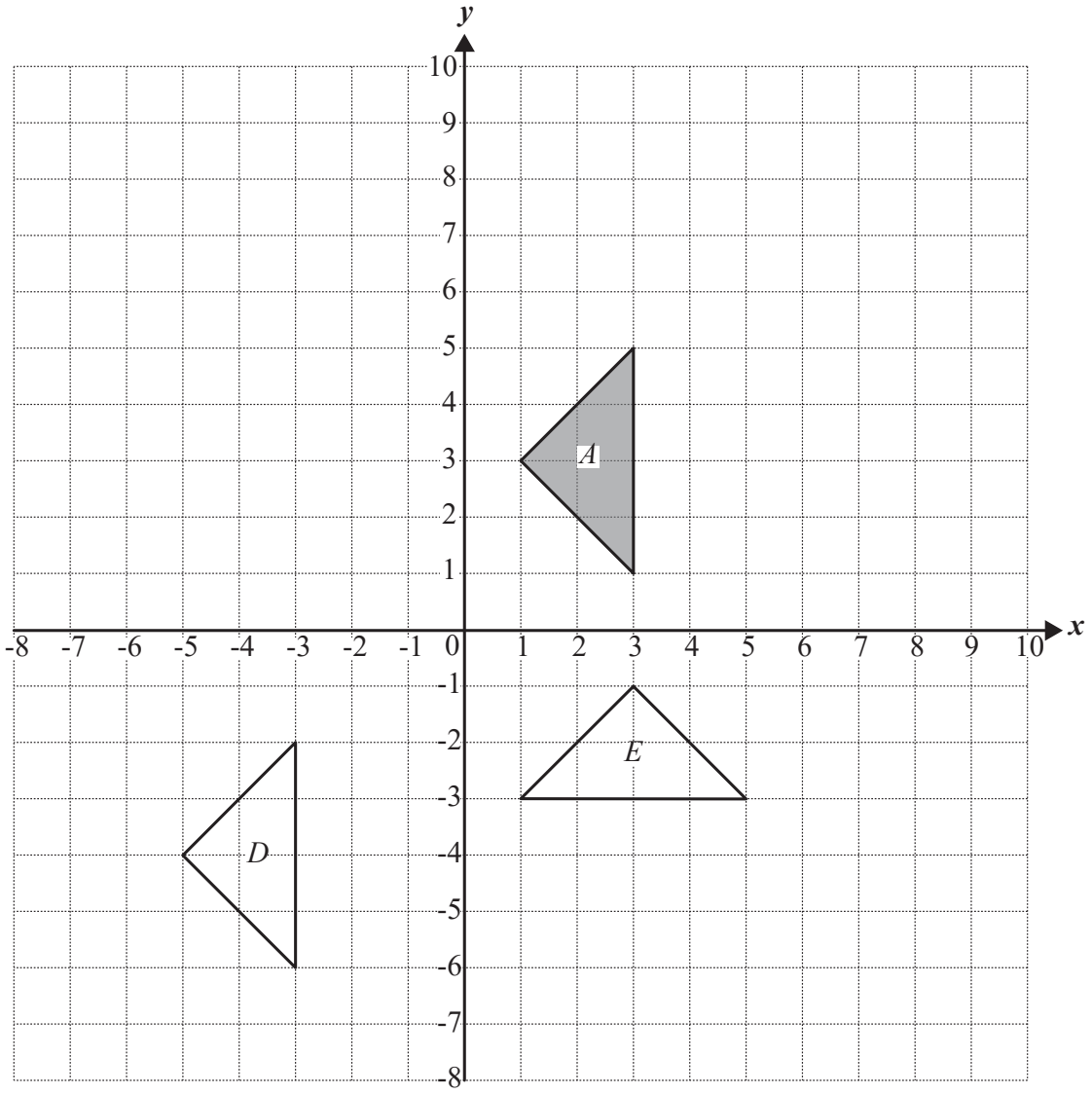
Answer (b) ..... ° [2]

(c) The triangle *PST* is the cross-section of a prism.
The length of the prism is 25 cm.

Calculate the volume of this prism.

Answer (c) ..... cm^3 [3]

5



(a) Reflect triangle *A* in the *y*-axis. Label the image *B*. [2]

(b) Draw the image of triangle A after an enlargement, scale factor 3, centre (0, 3). Label the image *C*. [2]

(c) Describe fully the **single** transformation that maps

(i) triangle *A* onto triangle *D*,

Answer(c)(i) .....

..... [2]

(ii) triangle *A* onto triangle *E*.

Answer (c)(ii) .....

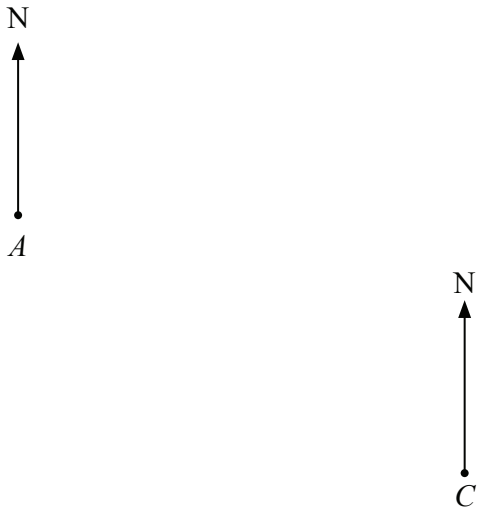
..... [3]

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6 The positions of port *A* and port *C* are shown in the diagram.
A ship leaves port *A* on a bearing of 065° and sails for 16 km to port *B*.
The ship then sails from port *B* to port *C*.

(a) Use a scale of 1 cm for 2 km to construct a scale drawing connecting the ports *A*, *B* and *C*.



[2]

(b) Find the bearing and distance of port *C* from port *A*.

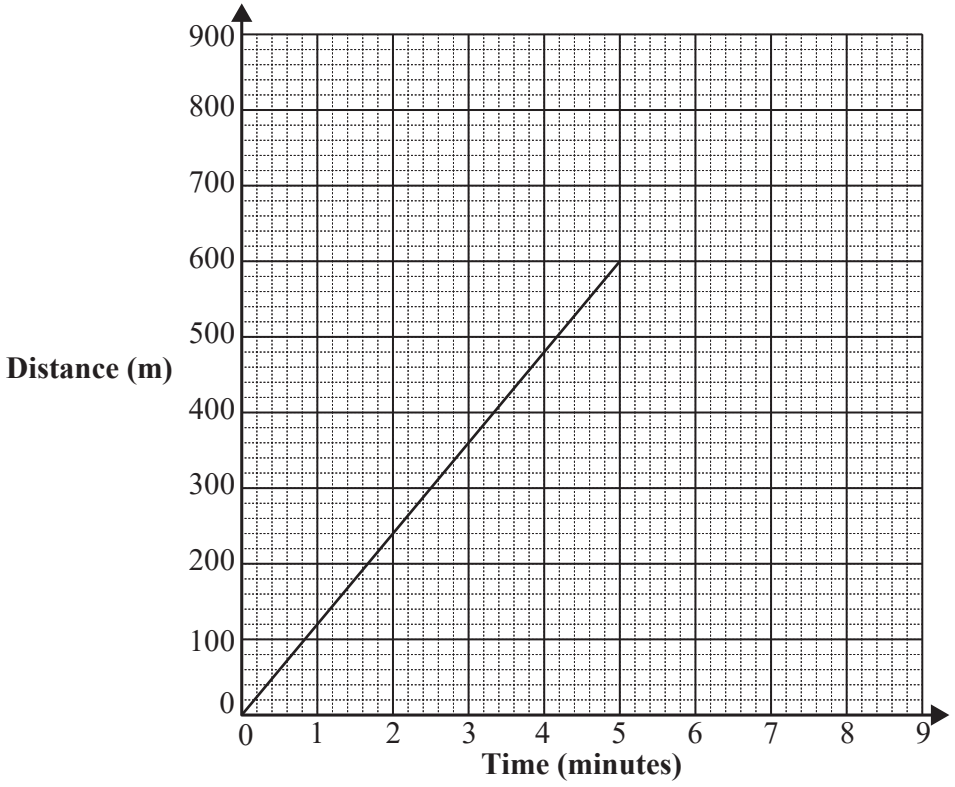
Answer (b) Bearing .....

Distance .....
[3]

(c) Find the distance of port *C* from port *B*.

Answer (c) ..... [1]

7 Musa's home is 900 m from the bus station.
Musa walked from home, a distance of 600 m steadily for 5 minutes.
He stopped for 1 minute to search for his bus ticket.
He then ran with a constant speed until he reached the bus station in 1 minute.



(a) Complete the next 2 stages of Musa's journey in the diagram above. [2]

(b) Find the distance travelled in the first 3 minutes.

Answer (b) ..... m [1]

(c) Calculate Musa's speed in the last part of the journey.

Write your answer in m/s.

Answer (c) ..... m/s [2]

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8 **(a)** Factorise.

$18 - 2y^2$

Answer (a) ..... [2]

(b) Solve.

(i) $\frac{t}{4} - 1 = 5$

Answer (b)(i) $t =$ ..... [2]

(ii) $x^2 - 2x = 32 + 2x$

Answer (b)(ii) $x =$ ..... or $x =$ ..... [4]

(iii) $2x - 7 < 13$

Answer (b)(iii) ..... [2]

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[Turn over

9 $f(x) = 4x - 3$ and $g(x) = x + 6$.

(a) **(i)** Evaluate f(4).

Answer (a)(i) ..... [1]

(ii) $f(a) = -31$.

Find the value of a.

Answer (a)(ii) $a =$ ..... [2]

(b) Simplify.

(i) $f(x) - g(x)$

Answer (b)(i) ..... [2]

(ii) $\frac{g(x)}{5} - \frac{f(x)}{2}$

Answer (b)(ii) ..... [3]

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10 (a) (i) Expand and simplify.

$(x - 3)(2x + 2)$

Answer (a)(i) ..... [3]

(ii) Simplify $(2x^2)^3$

Answer (a)(ii) ..... [2]

(b) $h = 12f + 3$

(i) Rearrange the formula to make f the subject.

Answer (b)(i) $f =$ ..... [2]

(ii) Find the value of f when $h = 27$.

Answer (b)(ii) $f =$ ..... [2]

11 **(a)** Write down the order of the matrix $\begin{pmatrix} -1 & 3 \\ 2 & 0 \\ 7 & 4 \\ 0 & 4 \end{pmatrix}$.

Answer (a) ..... [1]

(b) $2\begin{pmatrix} 2 & 3 \\ 4 & 5 \\ -2 & -1 \end{pmatrix} - \begin{pmatrix} 4 & 1 \\ -2 & 6 \\ y & y \end{pmatrix} = \begin{pmatrix} 0 & x \\ 10 & 4 \\ -5 & z \end{pmatrix}$

Find the values of x, y and z.

Answer $x =$ ....., $y =$ ....., $z =$ ..... [4]

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12 The ages of 90 people who visited a game park on a particular day were recorded. The table summarises the information.

(a) **(i)** Complete the table.

Age	**Number of people**
$10 \leq x < 15$	8
$15 \leq x < 20$	18
$20 \leq x < 25$	22
$25 \leq x < 30$	15
$30 \leq x < 35$	11
$35 \leq x < 40$	
$40 \leq x < 45$	12

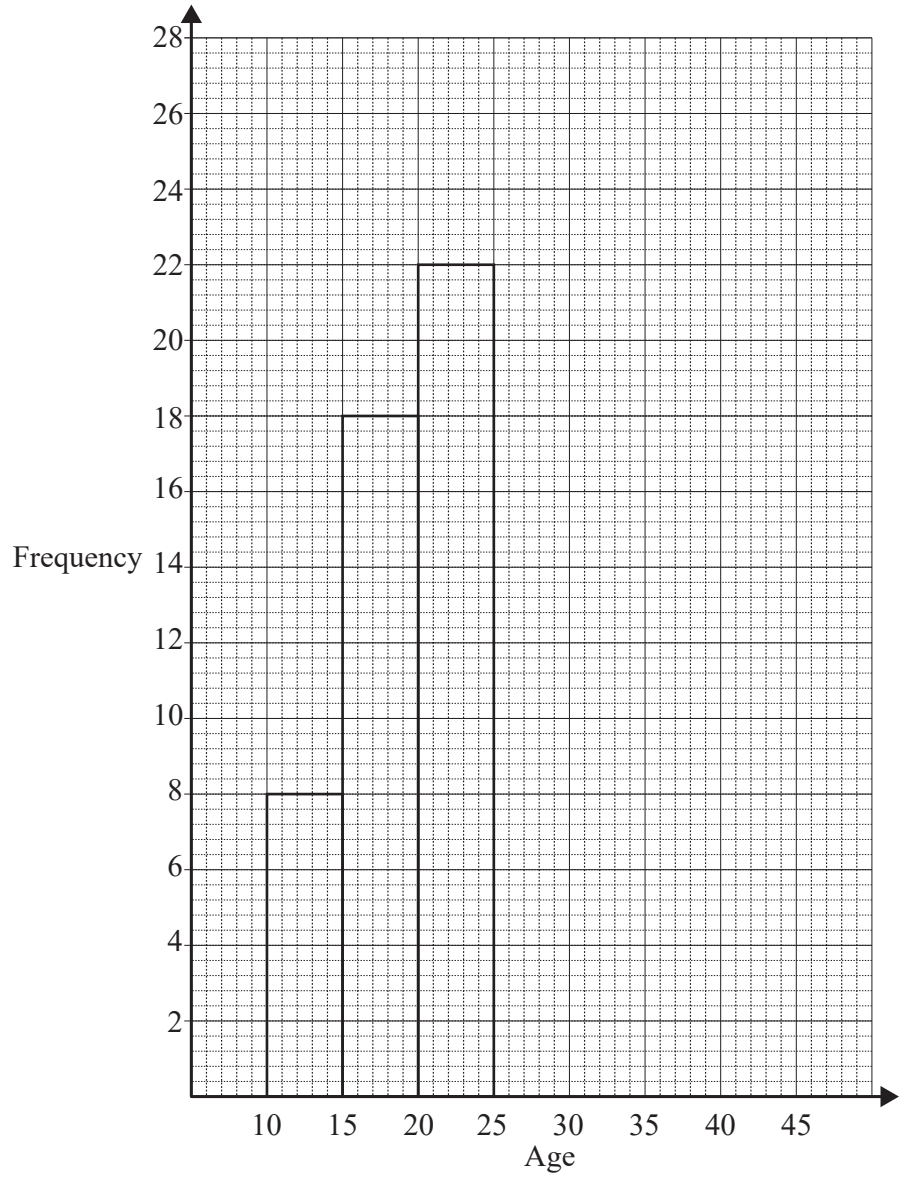
[1]

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(ii) Find the percentage of the total number of people who were younger than 25.

Answer (a)(ii) ..... [3]

(b) Part of a histogram is drawn on the grid below to represent the information.



Complete the histogram. [3]

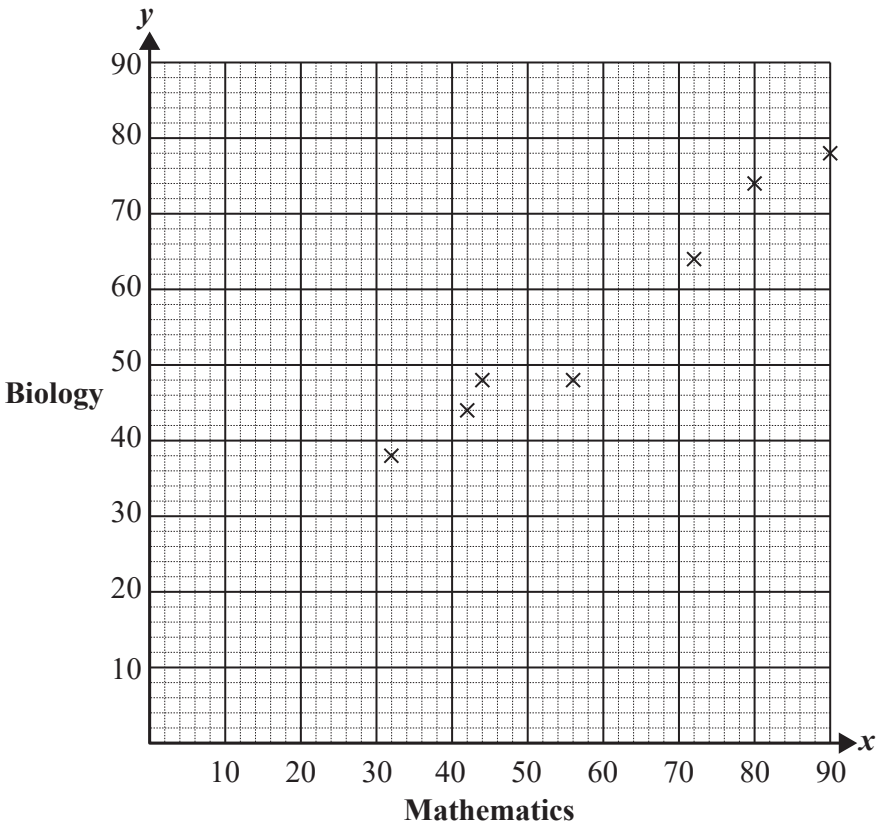
13 A class took a Mathematics test and a Biology test.

Marks for 9 of the learners are shown in the table

Mathematics	90	80	71	56	44	42	32	21	10
Biology	87	84	64	50	49	45	38	18	12

(a) The first 7 data points are plotted in the scatter diagram.

Plot the last two data points.



[1]

(b) State the type of correlation shown by the scatter diagram.

Answer (b) ..... [1]

(c) Draw a line of best fit for the diagram. [1]

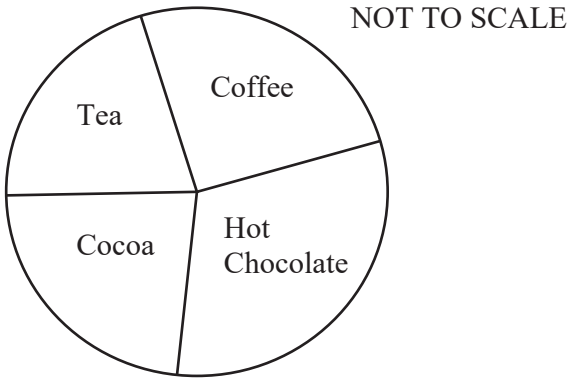
(d) Mbuso got 49% in Mathematics but did not take the Biology test.

Estimate the mark Mbuso would have obtained in Biology.

Answer (d) ..... [1]

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14 A group of 480 people were asked which hot beverage they liked.
The results are summarised in the Pie Chart.



(a) There were 100 people who liked coffee.

Find the sector angle for people who liked coffee.

Answer (a) .....° [2]

(b) The sector angle for the people who liked tea is 60°.

Find the number of people who liked tea.

Answer (b) ..... [2]

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