

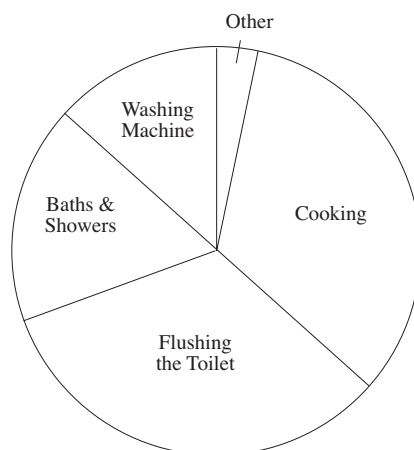
UNIT 16 *Data Presentation***CSEC Revision Test**

1. The table shows the number of different types of homes in a village.

Type of home	Detached house	Bungalow	Terraced house	Semi-detached house
Number of homes	35	52	33	60

- (a) Draw a pie chart to show this information. (6 marks)
- (b) Which type of home has the highest frequency? (1 mark)
2. A water company published a report on household water usage.

The pie chart shows the average amounts of water used per day by one person.



AVERAGE WATER USAGE PER DAY BY ONE PERSON

The total amount used per day by one person is 150 litres.

- (a) Measure the angle for the washing machine. (1 mark)
- (b) Calculate the number of litres used per day for the washing machine. (3 marks)
- (c) Calculate the fraction of the total used for the washing machine. (2 marks)
3. At a career guidance seminar, a survey was done to find out the type of careers that Grade 5 students were likely to choose.

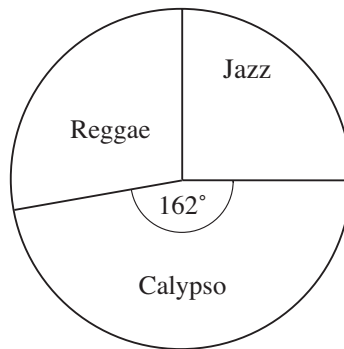
The results are shown in the table below.

Career	Lawyer	Teacher	Doctor	Artist	Salesperson
Number of students	240	189	t	216	330

There were 1080 students surveyed.

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- (a) Calculate the value of t , the number of students who were interested in becoming doctors. (2 marks)
- (b) (i) The data above are to be represented on a pie chart. Calculate the size of the angle in each sector of the pie chart. (4 marks)
- (ii) Using a circle of radius 4 cm, construct the pie chart to represent the data. (4 marks)
- (CXC)
4. (a) The pie chart below, **not drawn to scale**, shows the favourite music of a group of 60 students. The angle representing Jazz is 90° and the angle representing Calypso is 162° .



Calculate

- (i) the number of students whose favourite music is Jazz.
- (ii) the percentage of students whose favourite music is Reggae. (5 marks)
- (b) The heights, in cm, of 20 plants are shown below
- | | | | | |
|----|---|---|----|---|
| 9 | 7 | 5 | 4 | 6 |
| 4 | 8 | 6 | 9 | 7 |
| 10 | 6 | 5 | 7 | 9 |
| 6 | 4 | 4 | 10 | 4 |
- (i) Copy and complete the frequency table below to represent the information given above.

Height	Frequency
4	5
5	2
6	
7	
8	
9	3
10	2

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- (ii) Using the frequency table, determine the probability that a plant chosen at random is more than 8 cm tall.

(3 marks)

(CXC)

5. The waiting times, rounded down to the nearest minute, for 60 patients at a certain clinic are as follows:

25	12	53	8	26	5	19	73	67	18
87	42	6	21	14	19	12	15	13	36
36	16	72	36	13	37	11	51	39	32
30	47	6	22	68	25	98	23	45	22
7	9	26	35	27	48	58	56	29	20
32	62	80	41	58	17	54	15	14	74

- (a) Construct a frequency table using class intervals

0–9, 10–19, 20–29 and so on.

(2 marks)

- (b) Draw a frequency diagram to represent this data.

(2 marks)

- (c) Which interval has the largest frequency?

(1 mark)

TOTAL MARKS: 36

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ANSWERS

1. (a)

Type	Detached	Bungalow	Terraced	Semi-detached
Angle	70	104	66	120

 M1 A1 A1 A1
 Pie chart B2
- (b) Semi-detached B1 (7 marks)
2. (a) 48° B1
- (b) $\frac{48}{360} \times 150 = 20$ M2 A1
- (c) $\frac{48}{360} = \frac{2}{15}$ M1 A1 (6 marks)
3. (a) $t = 105$ B2
- (b) (i) $80^\circ, 63^\circ, 35^\circ, 72^\circ, 110^\circ$ (-1 for each error) B4
 (ii) Pie chart (-1 for each error) B4 (10 marks)
4. (a) (i) $\frac{90}{360} \times 60 = 15$ students prefer Jazz. M1 A1
 (ii) Angle = $360^\circ - (162^\circ + 90^\circ) = 108^\circ$ B1
 $\% \text{ Reggae} = \frac{108}{360} \times 100 = 30\%$ M1 A1
- (b) (i)

Height	Frequency
4	5
5	2
6	4
7	3
8	1
9	3
10	2

 B1
- (ii) $\frac{5}{20} = \frac{1}{4}$ M1 A1 (8 marks)
5. (a)

0-9	6
10-19	14
20-29	11
30-39	9
40-49	5
50-59	6
60-69	3
70-79	3
80-89	2
90-99	1

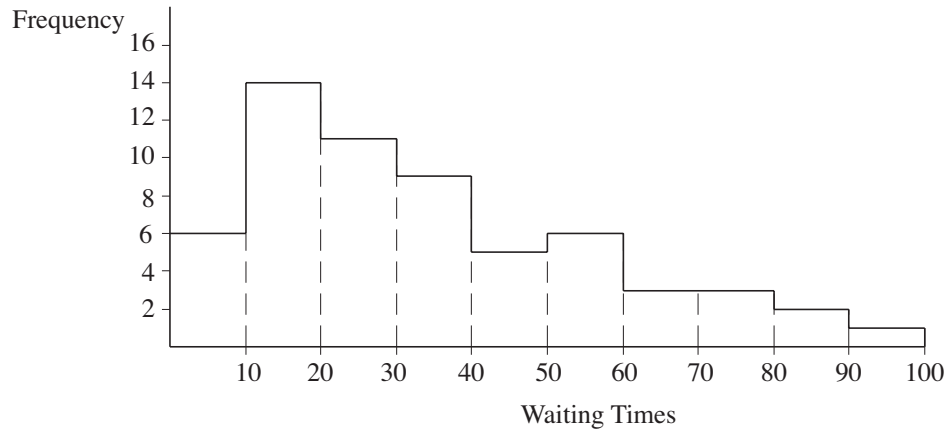
 B2

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ANSWERS

5. (b)



(B1 if only minor mistakes made)

B2

(c) 10 - 19

B1

(5 marks)

(TOTAL MARKS: 36)