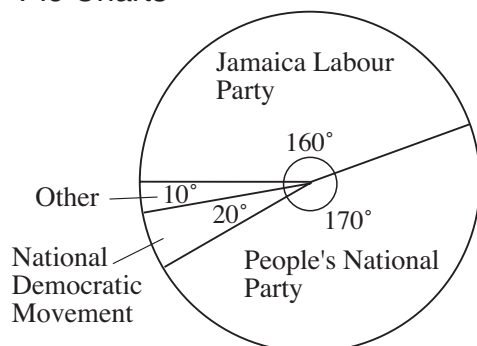


Student Text **UNIT 16** *Data Presentation*

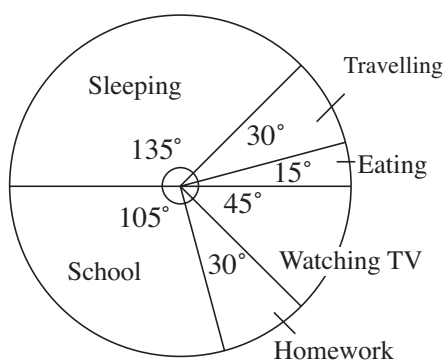
Answers

16.1 Pie Charts

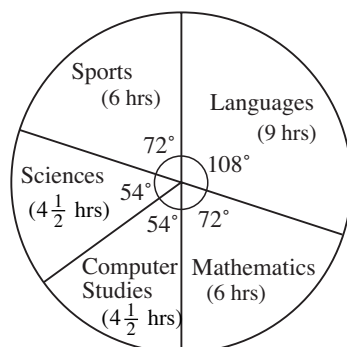
1.



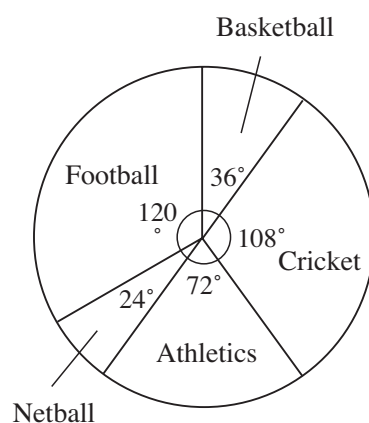
2.

3. (a) $20\% \times 30 \text{ hours} = 6 \text{ hours}$ (b) (i) 72° (ii) 108°

(c)

(d) (i) $\frac{1}{5}$ (ii) $\frac{1}{2}$

4.



■ denotes that the topic is not on the current CXC/CSEC Mathematics syllabus and therefore not examined, but is of relevance to the content of the Unit.

Student Text *UNIT 16 Data Presentation*

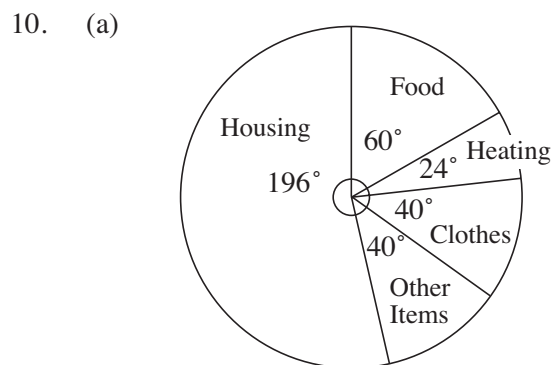
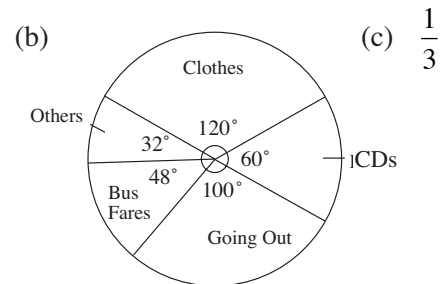
Answers

16.1

5. (a) 2 hours (b) 5 hours
 6. (a) \$10 (b) \$15 (c) \$35
 7. (a) 96° (b) 6 (c) 30 (d) 13
 8. Airmail = 50, 1st class = 320, 2nd class = 350

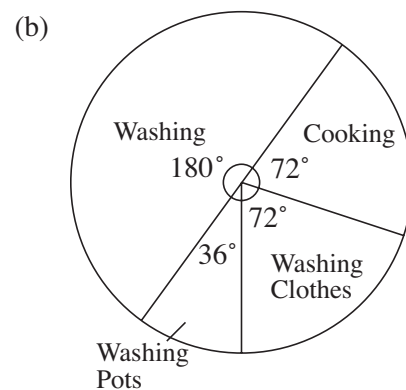
9. (a)

Items	Angle of Sector
Bus fares	48°
Going out	100°
Clothes	120°
CDs	60°
Others	32°
Total of angles	360°



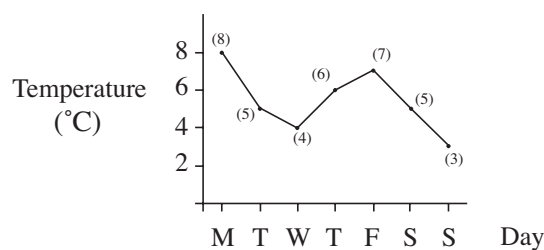
- (b) Andrew spends more money on housing than the average person.

11. (a) (i) 81 litres (ii) $\frac{15}{100} = \frac{3}{20}$



16.2 Line Graphs

1. (a) 4 cm (b) April (c) February and December (d) July and August
 2.

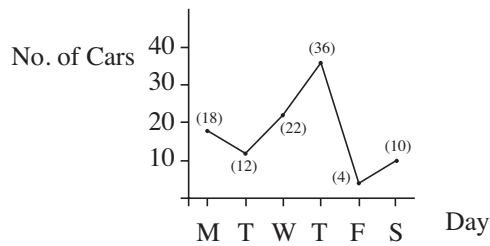


Student Text **UNIT 16** *Data Presentation*

Answers

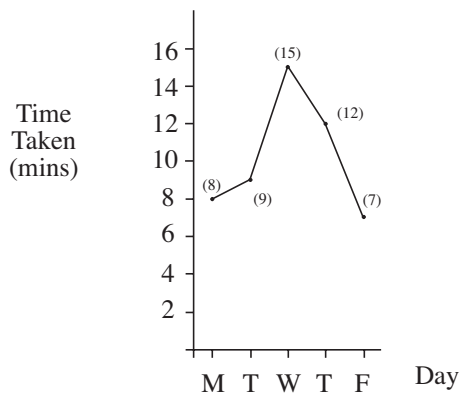
16.2

3.



4. (a) 40°C (b) 80°C (c) 20 mins after filling the mug (d) 25 mins

5.

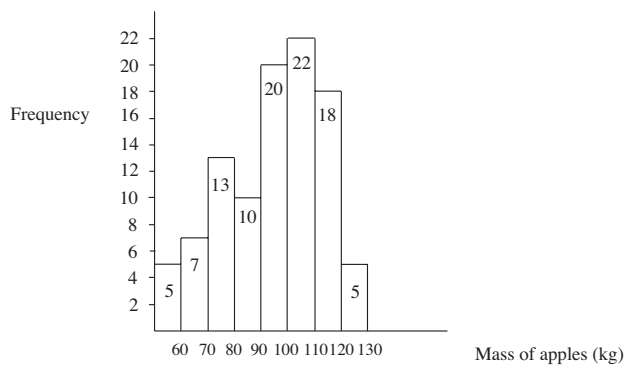


6. (a) 8 cm (b) 22 cm (c) 84 cm (d) 3 weeks

16.3 Frequency Graphs: Histograms

1. (a) 5 (b) 55
(c) 15 (d) 81 students in class
2. (a) 10 (b) 49
(c) 73 (d) largest = \$549.99, smallest = \$50

3.

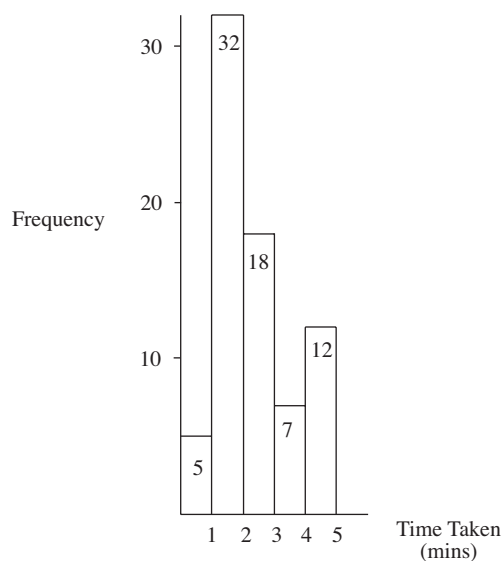


Student Text **UNIT 16** *Data Presentation*

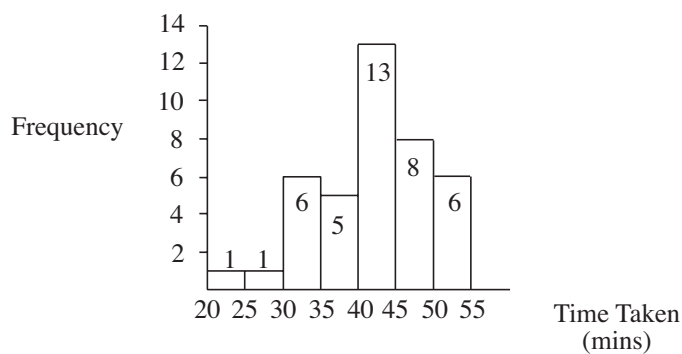
Answers

16.3

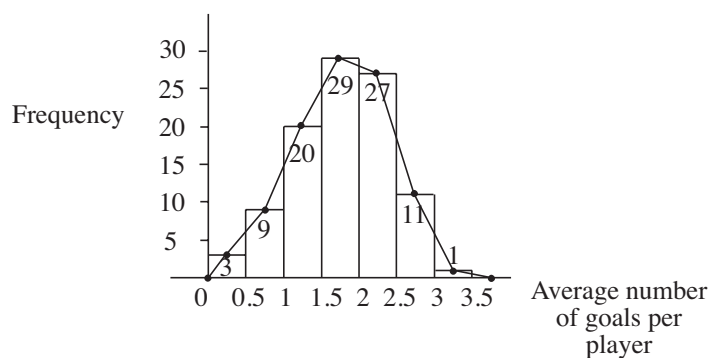
4.



5.



6.



7. (a)

Marks	Frequency
10 - 14	2
15 - 19	2
20 - 24	5
25 - 29	8
30 - 34	4
35 - 39	3

(b) See below

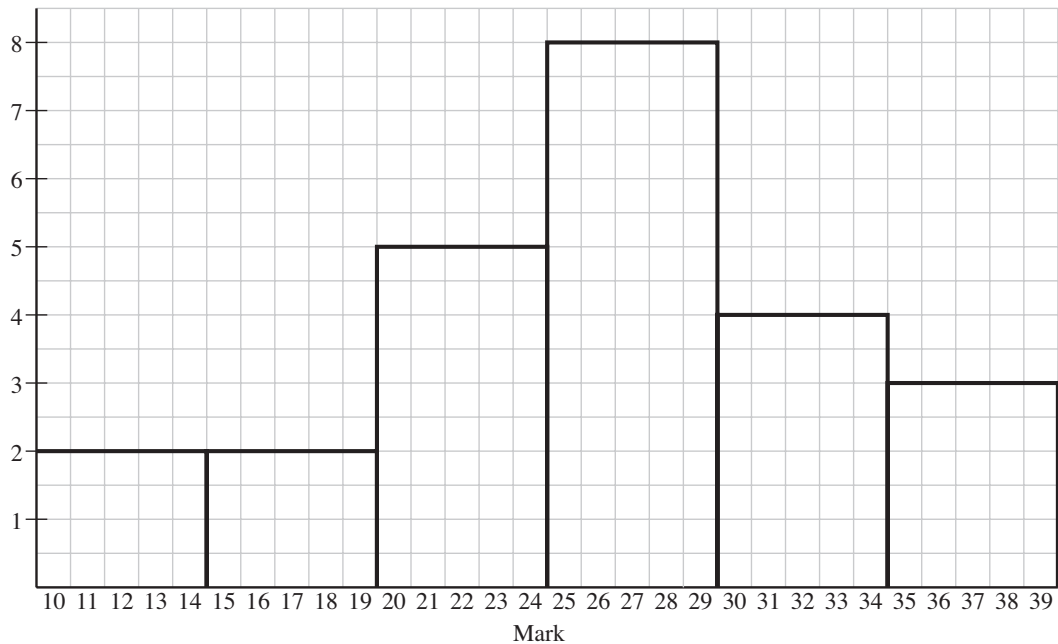
$$(c) \quad p = \frac{2 + 2 + 5}{24} = \frac{9}{24}$$

Student Text *UNIT 16 Data Presentation*

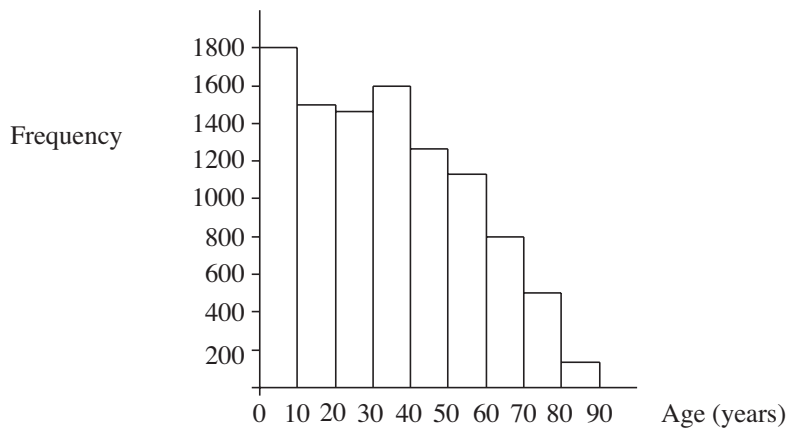
Answers

16.3

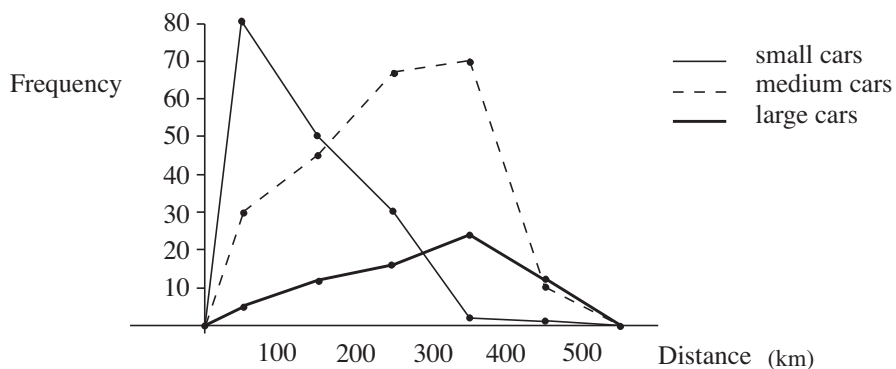
7. (b) Frequency



8.



9. (a)



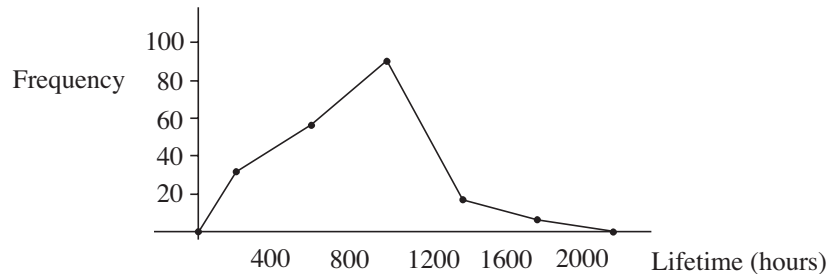
- (b) There is a downward trend in the small cars, and an upward trend in the medium and large cars. i.e. People use small cars for short journeys and the larger ones for long distances.

10. $62 + 70 = 132$ students

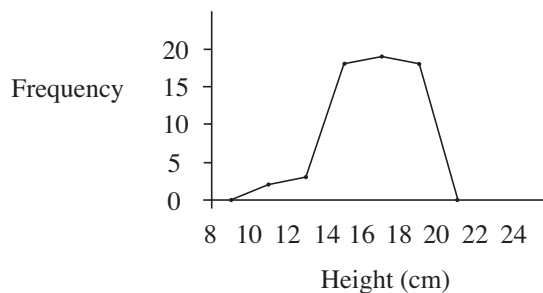
Student Text **UNIT 16 Data Presentation****Answers****16.3**

11. (a) (i) probability = $\frac{32}{200} = 0.16$ (ii) probability = $\frac{106}{200} = 0.53$

(b)



12. (a)

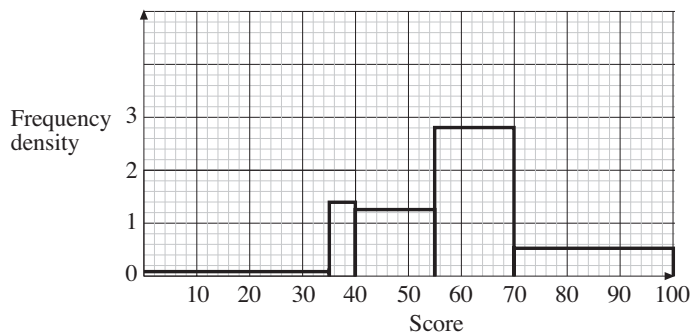


- (b) Type B has an even spread of plants between 10 and 22, whereas Type A has more taller plants.

The maximum number interval is 14 for Type B plants and 19 for Type A plants.

16.4 Histograms with Unequal Class Intervals

1. (a) 9 (b) 4 (c) 23
2. The area for the 20 - 25 interval is $0.9 \times 5 = 4.5$. This should be a whole number.
- 3.



4. (a) The width is 5 because age 0–4 is actually age 0 up to age 5, i.e. 5 years.
- (b) The widths are (from the 2nd interval) - 5, 10, 20, 20, 5, 15, 20.
- (c)

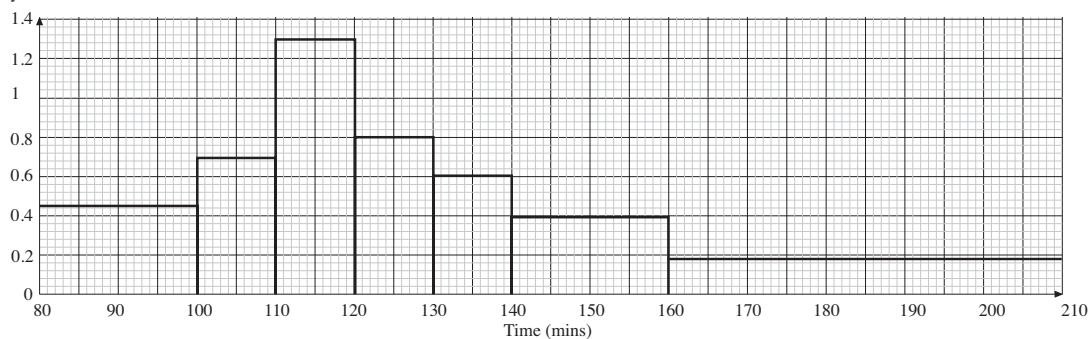


Student Text *UNIT 16 Data Presentation*

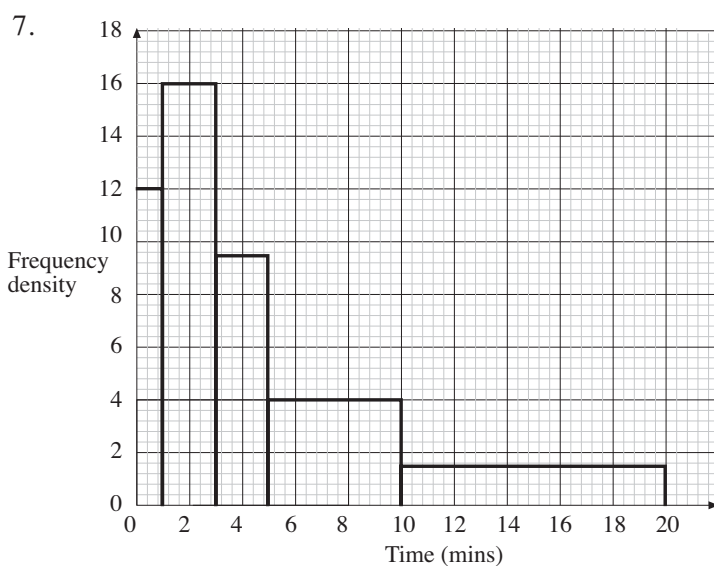
Answers

16.4

5. Frequency density



6. (a) 4 people (b) 23 people



8. (a) Frequencies: 4, 6, 7, 4, 6, 1. (b) 28 matches