CHAPTER 6: STATISTICS

Cloned SPM Question (2006, Paper 2)

The diagram below shows the donations, in RM, collected by a group of 40 pupils.

32	49	34	45	51	52	30	53
41	43	30	43	46	29	41	26
39	42	44	43	47	36	34	44
35	39	47	44	49	37	38	38
47	33	49	38	29	42	28	31

(a) Based on the data in the diagram, complete the following table by using a class interval of 5.

Class interval	Midpoint	Frequency
25 – 29	27	4
30 – 34		

(b) Based on the table in (a), estimate the mean donation collected by a pupil.

(c) Using a scale of 2 cm to RM5 on the horizontal axis and 2 cm to 1 pupil on the vertical axis, draw a frequency polygon for the data.

(d) Based on the frequency polygon in (c), state one piece of information about the donations.
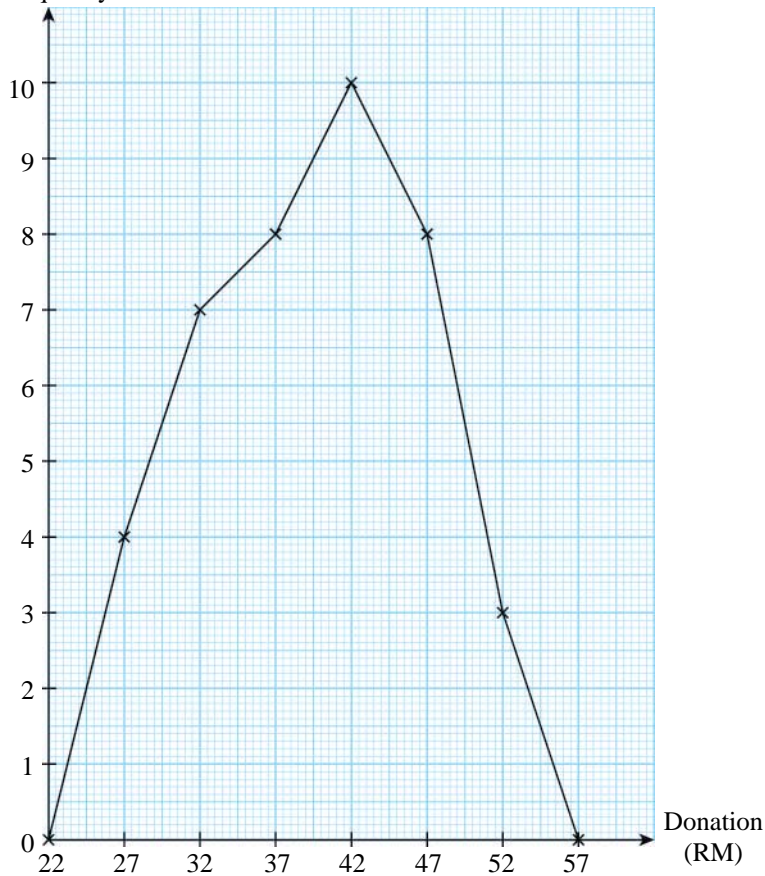
Solution

(a)

Class interval	Midpoint	Frequency
25 – 29	27	4
30 – 34	32	7
35 – 39	37	8
40 – 44	42	10
45 – 49	47	8
50 – 54	52	3

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(b) Estimated mean

$$= \frac{27 \times 4 + 32 \times 7 + 37 \times 8 + 42 \times 10 + 47 \times 8 + 52 \times 3}{40}$$

$$= \frac{1\ 580}{40}$$

$$= RM39.50$$

(c) Frequency

(d) The modal class for the data is 40 – 44.