

## CHAPTER 6: STATISTICS

### Paper 2

1. The data in the diagram shows the marks obtained by a group of scholarship applicants.

Clone  
SPM  
2006

94	81	86	94	83	75	90	95
76	93	97	85	79	84	80	89
98	80	72	92	96	88	95	75
87	88	83	84	89	73	76	83
72	85	91	82	77	86	85	96

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

Class interval	Midpoint	Frequency
71 – 75	73	5
76 – 80		

- (b) Based on the table in (a), calculate the estimated mean mark of the group of applicants.
- (c) By using a scale of 2 cm to 5 marks on the horizontal axis and 2 cm to 1 applicant on the vertical axis, draw a frequency polygon for the data.
- (d) Base on the frequency polygon in (c), state one piece of information about the marks obtained by the group of applicants.

2. The data shows the daily profit earned, in RM, by a shopkeeper in the month of November 2007.

61	71	71	90	76	63
82	52	64	85	91	83
90	99	84	56	77	64
82	75	61	83	98	89
102	75	96	79	87	55

- (a) By using class intervals of the same size, complete the following table for the data given above.

Profit earned (RM)	Midpoint	Frequency	Upper boundary
50 – 59	54.5	3	
60 – 69			

- (b) Based on the table in (a),  
(i) state the modal class,  
(ii) estimate the mean daily profit of the shopkeeper in the month of November 2007.
- (c) By using a scale of 2 cm to RM10 on the horizontal axis and 2 cm to 1 day on the vertical axis, draw a histogram for the data.

3. The data shows the monthly savings, in RM, of a class of 32 pupils.

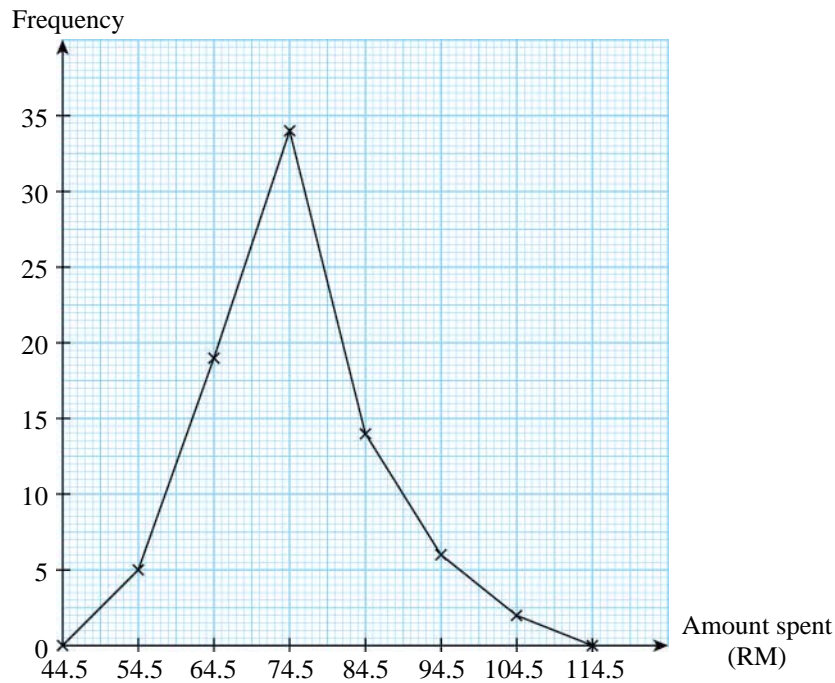
33	29	25	26	31	28	23	38
21	20	11	19	22	17	22	26
15	20	28	24	26	24	27	34
30	29	18	28	17	27	24	13

- (a) Based on the data above, complete the following table by using a class interval of RM5.

Class interval	Frequency	Upper boundary	Cumulative frequency
10 – 14			
15 – 19			

- (b) Based on the table in (a),  
(i) find the range,  
(ii) state the modal class.
- (c) By using a scale of 2 cm to 5 units on both axes, draw an ogive for the data. Hence, determine the interquartile range.

4. The frequency polygon below shows the amount spent by a group of customers in an emporium on a particular day.



- (a) Based on the frequency polygon above,  
 (i) calculate the estimated mean amount spent by the group on that particular day,  
 (ii) complete the following table.

Class interval	Frequency	Upper boundary	Cumulative frequency
50 – 59	5	59.5	5

- (b) By using a scale of 2 cm to 10 units on both axes, draw an ogive for the data. Hence, determine  
 (i) the median,  
 (ii) the third quartile.