## Statistics (Q 7, Paper 2)

2004
7 (a) The mean of the set of numbers $\{1,3,7,9\}$ is 5 .
Find the standard deviation, correct to one decimal place.
(b) The following table shows the time in minutes spent by customers in a cafeteria.

| Time in minutes | $0-10$ | $10-20$ | $20-40$ | $40-70$ |
| :--- | :---: | :---: | :---: | :---: |
| Number of customers | 80 | 100 | 160 | 60 |

[Note that 10-20 means at least 10 but less than 20 minutes etc.]
(i) Find the total number of customers.
(ii) Draw a histogram to represent the data.
(iii) By taking the data at the mid-interval values, calculate the mean number of minutes per customer.
(iv) What is the greatest number of customers who could have spent more than 30 minutes in the cafeteria?
(v) What is the least number of customers who could have spent more than 30 minutes in the cafeteria?

## Answers

$7 \quad$ (a) 3.2
(b) (i) 400
(iii) 25
(iv) 220
(v) 60

