## STATISTICS (Q 7, PAPER 2)

## 2008

7   (a)   The ages of the members of a sports centre were analysed. The results were:

| Age | 15–25 | 25–35 | 35–45 | 45–55 | 55–75 |
|---|---|---|---|---|---|
| Number of members | 40 | 100 | 60 | 80 | 120 |

[Note: 25–35 means 25 years old or more but less than 35, etc.]

(i)   Draw a histogram to represent the data.

(ii)   By taking the data at the mid-interval values, calculate the mean age per member.

(iii)   What is the greatest possible number of members who could have been over 60 years of age?

(b)   The amount of money spent by shoppers in a supermarket over a particular time period was recorded. The results are represented by the ogive below:
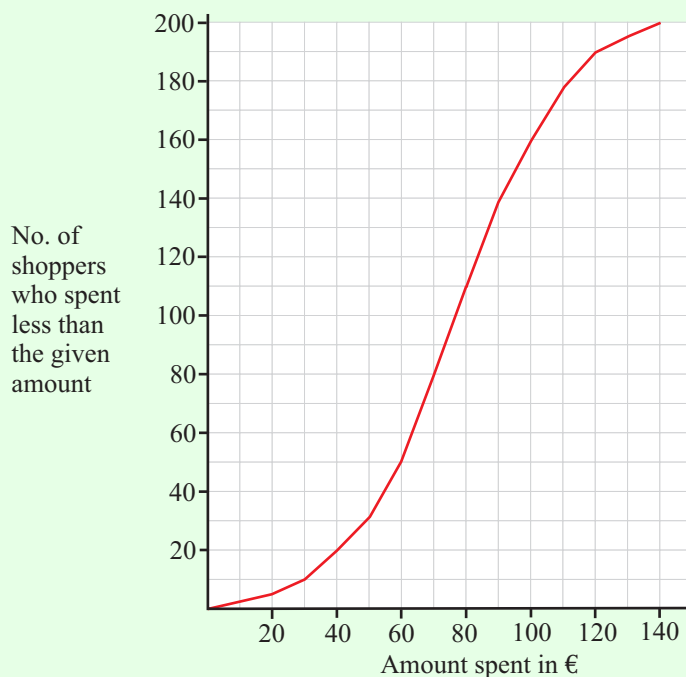


(i)   Estimate the median amount spent.

(ii)   Estimate the interquartile range.

(iii)   Estimate the number of shoppers who spent between €40 and €100.

(iv)   Given that the mean amount spent was €80 per shopper, estimate the percentage of shoppers who spent more than the mean amount.

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**ANSWERS**

7   (a)  (ii) 45          (iii) 120
    (b)  (i) €78          (ii) €35          (iii) 140          (iv) 45%