## Statistics (Q 7, Paper 2)

2007
7 (a) Find the median of the numbers

$$
5,11,3,16,8 .
$$

(b) The table below shows the time, in minutes, that customers were waiting to be served in a restaurant.

| Time (minutes) | $<5$ | $<10$ | $<15$ | $<20$ | $<25$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of customers | 5 | 20 | 70 | 110 | 120 |

(i) Draw a cumulative frequency curve (ogive).
(ii) Use your curve to estimate the median waiting time.
(iii) Use your curve to estimate the interquartile range.
(c) The age of each person living in one street was recorded during a census.

The information is summarised in the following table:

| Age (in years) | $0-20$ | $20-30$ | $30-50$ | $50-80$ |
| :--- | :---: | :---: | :---: | :---: |
| Number of people | 16 | 12 | 32 | 12 |

(i) How many people were living in the street?
(ii) Using mid-interval values, calculate the mean age.
(iii) What is the greatest number of people who could have been aged under 40 years?

## Answers

$7 \quad$ (a) 8
(b) (ii) 14 mins
(iii) 8 mins
(c) (i) 72
(ii) 35
(iii) 60

