9 One Saturday, each of the 100 people who visited a library was asked how long they were in the library.
The table below shows information about the results.

Time (t mins)	Frequency
$0 < t \leqslant 10$	16
$10 < t \leqslant 30$	22
$30 < t \leqslant 35$	10
$35 < t \leqslant 60$	40
$60 < t \leqslant 100$	12

(a) Calculate an estimate for the mean length of time, in minutes to 3 significant figures, these people were in the library.

(4)

Two of the 100 people who visited the library that Saturday are picked at random.

(b) Find, to 3 decimal places, the probability that

(i) both people were in the library for more than 30 minutes,

(ii) one of the two people was in the library for more than 30 minutes and one was in the library for 30 minutes or less.

(5)

Question 9 continued

(Total for Question 9 is 9 marks)