3 Fig. 3 shows the time Lorraine spent in hours, t, answering e-mails during the working day. The data were collected over a number of months.

Time in hours, t	$0 \leqslant t < 1$	$1 \leqslant t < 2$	$2 \leqslant t < 3$	$3 \leqslant t < 4$	$4 \leqslant t < 6$	$6 \leqslant t < 8$
Number of days	28	36	42	31	24	12

Fig. 3

(a) Calculate an estimate of the mean time per day that Lorraine spent answering e-mails over this period. **[1]**

(b) Explain why your answer to part **(a)** is an estimate. **[1]**

When Lorraine accepted her job, she was told that the mean time per day spent answering e-mails would not be more than 3 hours.

(c) Determine whether, according to the data in Fig. 3, it is possible that the mean time per day Lorraine spends answering e-mails is in fact more than 3 hours. **[1]**