

Maths HL12 Extended – Histograms

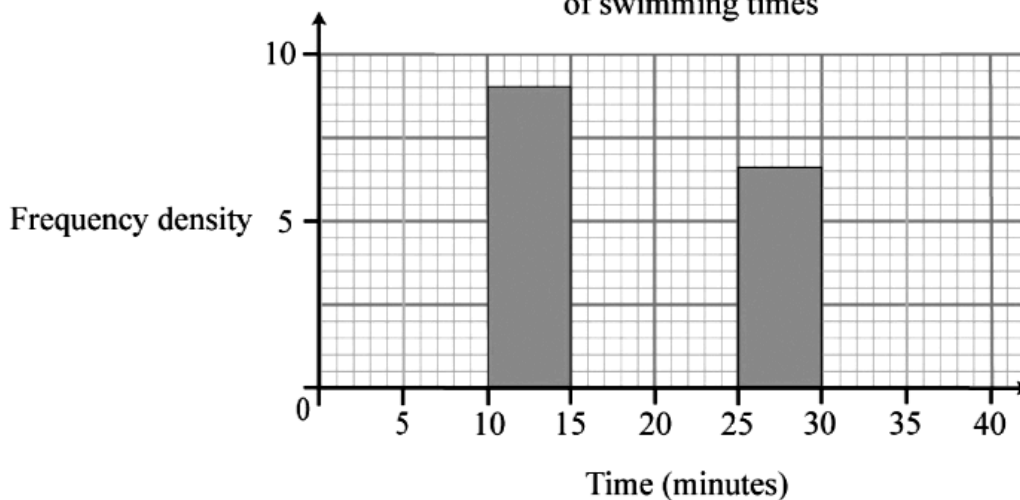
1. Sandra recorded how long each of her classmates could hold their breath (in seconds). These are her results:

8	12	23	40	22	45	34	27	19	20
12	22	37	42	39	37	21	43	39	24
15	29	19	28	23	40	32	19	25	31

- a Using the class intervals of $1 \leq \text{time} < 21$, $21 \leq \text{time} < 31$, $31 \leq \text{time} < 41$ and $41 \leq \text{time} < 46$, draw a grouped frequency table to show the data.
- b What is the modal class of the data?
- c Draw a histogram to show her results.
2. A survey of several swimmers at a pool recorded the time (in minutes) which they swam on a particular day. The table and the histogram below show the results, but some of the information is missing.

Swimming time (x minutes)	Frequency density
$0 \leq x < 10$	3
$10 \leq x < 15$	
$15 \leq x < 25$	4.1
$25 \leq x < 30$	
$30 \leq x < 40$	2.5

3. Histogram to show the distribution
of swimming times



Copy and complete both the table and the histogram.