

Quartiles and Percentiles for Grouped Data

Find the lower quartile, upper quartile, interquartile range and the 65th percentile for the grouped frequency distributions given below.

1.

The grouped frequency distribution for the life time (in hours) of 200 electric bulbs is given below.

Life time (hours)	590-599	600-609	610-619	620-629	630-639	640-649	650-659	660-669
Frequency	4	9	23	41	81	29	9	4

2.

The following table summarises the distances, to the nearest km, that 134 examiners travelled to attend a meeting in London.

Distance (km)	Number of examiners
41–45	4
46–50	19
51–60	53
61–70	37
71–90	15
91–150	6

3.

The heights x cm of 100 boys in Year 7 at a school are summarised in the table below.

Height	$125 \leq x \leq 140$	$140 < x \leq 145$	$145 < x \leq 150$	$150 < x \leq 160$	$160 < x \leq 170$
Frequency	25	29	24	18	4