

1. This table shows information about the length of time 60 customers spent at a gym.

Time (t minutes)	Frequency
$0 < t \leq 20$	5
$20 < t \leq 40$	14
$40 < t \leq 60$	8
$60 < t \leq 80$	17
$80 < t \leq 100$	5
$100 < t \leq 120$	11

Show that an estimate for the mean time in the gym is 62 minutes.

You must show all your working.

2. This table shows information about the costs of 50 package holidays.

Cost ($\pounds C$)	Frequency
$400 < C \leq 600$	13
$600 < C \leq 800$	19
$800 < C \leq 1000$	11
$1000 < C \leq 1200$	7
$1200 < C \leq 1400$	0

Show that an estimate for the mean holiday cost is $\pounds 748$

You must show all your working.

3. This table shows information about the heights of 30 boys.

Height (h cm)	Frequency
$120 < h \leq 130$	2
$130 < h \leq 140$	5
$140 < h \leq 150$	8
$150 < h \leq 160$	7
$160 < h \leq 170$	5
$170 < h \leq 180$	3

Estimate the mean height of these boys.

Give your answer to 1 decimal place.

..... cm

Answers

Q1: $\Sigma(mid \times freq) \div \Sigma freq = 3720 \div 60$, row totals are 50, 420, 400, 1190, 450, 1210

Q2: $\Sigma(mid \times freq) \div \Sigma freq = 37\ 400 \div 50$, row totals are 6500, 13\ 300, 9900, 7700, 0

Q3: 150.7, $\Sigma(mid \times freq) \div \Sigma freq = 4520 \div 30 = 150.66\dots$, row totals are 250, 675, 1160, 1085, 825, 525 M1