FREQUENCY TABLES

TOTALS AND THE MEAN

Ref: G631. 1S1

A1 The table shows information about the number of visits to a gym, made by 20 students last week:

No. of Visits	No. of students
0	9
1	6
2	4
3	1

Work out the total number of visits.

A2 Sam rolls a bias tetrahedral dice 40 times. The table shows information about his scores:

Score	Frequency
1	7
2	6
3	12
4	15

Work out his mean score.

A3 Maddie keeps chickens. The table shows information about the number of eggs they lay in each of 26 weeks:

No. of eggs laid	No. of weeks
0 to 6	1
7 to 13	5
14 to 20	17
21 to 27	3

Work out an estimate for total number of eggs laid.

A4 The table shows information about the amount of money customers spent in a coffee shop:

Money spent (£x)	No. of customers
$0 < x \leq 5$	33
$5 < x \leq 10$	14
$10 < x \leq 15$	8
$15 < x \leq 20$	5

Work out an estimate for the mean amount of money spent.

B1 The table gives information about the number of sets won by a tennis player in her last 25 matches:

No. of sets won	No. of matches
0	3
1	2
2	5
3	15

Work out the total number of sets that she won.

B2 40 students took part in a sponsored swim. The table shows information about the money they each raised.

Money raised (£x)	Frequency
$0 < x \leq 10$	8
$10 < x \leq 20$	16
$20 < x \leq 30$	12
$30 < x \leq 40$	4

Work out an estimate for the total amount of money raised.

B3 The table shows information about the numbers of goals scored by some hockey teams last week:

No. of Goals	Frequency
3	7
4	10
5	2
6	1

Work out the mean number of goals scored.

B4 Mrs Rea gave her class 35 words to spell. The table shows the number of correct spellings for each student.

No. of correct spellings	Frequency
0 – 8	2
9 – 17	7
18 – 26	14
27 – 35	7

Work out an estimate for the mean number of correct spellings.

FREQUENCY TABLES

TOTALS AND THE MEAN

Ref: G631. 1S1

A1

No. of Visits	No. of students
0	9
1	6
2	4
3	1

Total = $0\times9+1\times6+2\times4+3\times1$
$=0+6+8+3$
$=17$

A2

Score	Frequency
1	7
2	6
3	12
4	15
	40

Mean = $\frac{1\times7+2\times6+3\times12+4\times15}{40}$
$=\frac{115}{40}$
$=2.875$

A3

Mid-value	No. of weeks
3	1
10	5
17	17
24	3

Total = $3\times1+10\times5+17\times17+24\times3$
$=3+50+289+72$
$=414$

A4

Mid-value	No. of customers
2.5	33
7.5	14
12.5	8
17.5	5
	60

Mean
$=\frac{2.5\times33+7.5\times14+12.5\times8+17.5\times5}{60}$
$=\frac{375}{60}=6.25$

B1

No. of sets won	No. of matches
0	3
1	2
2	5
3	15

Total = $0\times3+1\times2+2\times5+3\times15$
$=0+2+10+45$
$=57$

B2

Mid-value	Frequency
5	8
15	16
25	12
35	4

Total = $5\times8+15\times16+25\times12+35\times4$
$=40+240+300+140$
$=720$

B3

No. of Goals	Frequency
3	7
4	10
5	2
6	1
	20

Mean = $\frac{3\times7+4\times10+5\times2+6\times1}{20}$
$=\frac{77}{20}=3.85$

B4

Mid-value	Frequency
4	2
13	7
22	14
31	7
	30

Mean = $\frac{4\times2+13\times7+22\times14+31\times7}{30}$
$=\frac{624}{30}=20.8$