

12:01 | Frequency and Cumulative Frequency

Name: _____

Class: _____

Example

Arrange these scores into a frequency distribution table:

0, 1, 1, 0, 3, 2, 1, 0, 1, 2, 2, 0, 1, 4, 1, 3, 2, 1, 2, 3, 3, 2, 0, 4, 3

Score	Tally	Frequency	Cumulative frequency
0		5	5
1		7	12
2		6	18
3		5	23
4		2	25

Total = 25



Tally: Mark off each score in turn.

Frequency: Total of tally.

Cumulative frequency: Add the frequency line by line to keep a running total of the scores.

Exercise

1 Arrange these scores into a frequency distribution table.

a 5, 4, 3, 4, 5, 5, 4, 3, 5, 6,
7, 4, 3, 5, 5, 5, 5, 4, 3, 6

Score	Tally	Frequency

b 22, 23, 22, 21, 24, 23, 24, 22,
25, 23, 22, 21, 22, 23, 22, 24,
25, 21, 23, 23, 24, 24, 22, 21,
22, 23, 24, 21, 22, 23

Score	Tally	Frequency

c 40, 42, 41, 42, 43, 41, 44, 43,
42, 40, 41, 44, 43, 40, 40, 42,
41, 42, 43, 43, 42, 41, 44, 42,
41, 43, 40, 41, 42, 42

Score	Tally	Frequency

2 Referring to the scores above, find:

a i how many scores of 3 there were

ii how many scores were above 5

b i how many 23s there were

ii how many scores were less than 24

c i how many scores were below 42

ii how many scores were 42 or more

3 Add a cumulative frequency column to each table.

a

Outcome	Frequency
1	3
2	2
3	4
4	3
5	2
6	1

b

Outcome	Frequency
0	3
10	5
20	7
30	8
40	6
50	1

c

Outcome	Frequency
10	4
11	7
12	12
13	8
14	5

d

Outcome	Frequency
74	8
75	12
76	15
77	17
78	13
79	8
80	7

e

Outcome	Frequency
20	4
22	7
24	8
26	9
28	6
30	3
32	0
34	3

f

Outcome	Frequency
1	3
2	4
3	6
4	10
5	9
6	7
7	8
8	0
9	4
10	4

12:01 Frequency and Cumulative Frequency

1 a

Score	Tally	Frequency
3		4
4		5
5		8
6		2
7		1

b

Score	Tally	Frequency
21		5
22		9
23		8
24		6
25		2

c

Score	Tally	Frequency
40		5
41		7
42		9
43		6
44		3

2 a i 4 ii 3 b i 8 ii 22 c i 12 ii 18

3 a

Cumulative frequency
3
5
9
12
14
15

b

Cumulative frequency
3
8
15
23
29
30

c

Cumulative frequency
4
11
23
31
36

d

Cumulative frequency
8
20
35
52
65
73
80

e

Cumulative frequency
4
11
19
28
34
37
37
40

f

Cumulative frequency
3
7
13
23
32
39
47
47
51
55