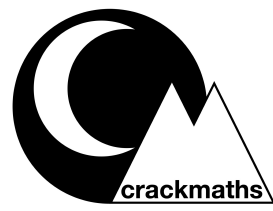# 63. How to estimate the mean from a grouped frequency table

Scenario Questions: Round answers to 2 decimal places

1. The following table shows the weights (in kg) of 50 students in a class. Use the table to estimate the mean weight of the students.

Weight (kg)	Frequency
50 < w ≤ 55	8
55 < w ≤ 60	12
60 < w ≤ 65	15
65 < w ≤ 70	10
70 < w ≤ 75	5

2. A survey was conducted to determine the ages (in years) of people living in a neighbourhood. The results are shown in the table below. Estimate the mean age of the residents.

Age (years)	Frequency
20 < y ≤ 30	9
30 < y ≤ 40	10
40 < y ≤ 50	11
50 < y ≤ 60	6
60 < y ≤ 70	4

Scenario Questions: Round answers to 2 decimal places

3. The table below displays the number of books read per month by a group of students. Estimate the mean number of books read in a month.

Books Read	Frequency
0 - 5	10
6 - 10	7
11 - 15	3
16 - 20	5
21 - 25	5

4. A farmer recorded the milk yield (in litres) of his cows. The data is represented in the table below. Estimate the mean milk yield of the cows.

Milk (litres)	Frequency
$10 < l \leq 15$	20
$15 < l \leq 20$	30
$20 < l \leq 25$	25
$25 < l \leq 40$	5

Scenario Questions: Round answers to 2 decimal places

5. A survey was conducted to find out the travel time (in minutes) for commuters. The data is represented in the table below. Estimate the mean travel time

Travel (minutes)	Frequency
20 < t ≤ 30	12
30 < t ≤ 40	6
40 < t ≤ 50	2

6. The marks (out of 60) obtained by a group of students in a test are shown in the table below. Estimate the mean of their marks.

Marks	Frequency
0 - 20	3
21 - 30	6
31 - 40	26
41 - 50	4
51 - 60	1

63. How to estimate the mean from a grouped frequency table

Scenario Questions: Answers

1. The following table shows the weights (in kg) of 50 students in a class. Use the table to estimate the mean weight of the students.

Weight (kg)	Frequency
50 < w ≤ 55	8
55 < w ≤ 60	12
60 < w ≤ 65	15
65 < w ≤ 70	10
70 < w ≤ 75	5

1. 61.7kg

2. A survey was conducted to determine the ages (in years) of people living in a neighbourhood. The results are shown in the table below. Estimate the mean age of the residents.

Age (years)	Frequency
20 < y ≤ 30	9
30 < y ≤ 40	10
40 < y ≤ 50	11
50 < y ≤ 60	6
60 < y ≤ 70	4

2. 41.5 years

3. The table below displays the number of books read per month by a group of students. Estimate the mean number of books read in a month.

Books Read	Frequency
0 - 5	10
6 - 10	7
11 - 15	3
16 - 20	5
21 - 25	5

3. 10.83 books

63. How to estimate the mean from a grouped frequency table

Scenario Questions: Answers

4. A farmer recorded the milk yield (in litres) of his cows. The data is represented in the table below. Estimate the mean milk yield of the cows.

4. 18.75 litres

Milk (litres)	Frequency
10 < l ≤ 15	20
15 < l ≤ 20	30
20 < l ≤ 25	25
25 < l ≤ 40	5

5. A survey was conducted to find out the travel time (in minutes) for commuters. The data is represented in the table below. Estimate the mean travel time

5. 30 minutes

Travel (minutes)	Frequency
20 < t ≤ 30	12
30 < t ≤ 40	6
40 < t ≤ 50	2

6. The marks (out of 60) obtained by a group of students in a test are shown in the table below. Estimate the mean of their marks.

6. 33.59 marks

Marks	Frequency
0 - 20	3
21 - 30	6
31 - 40	26
41 - 50	4
51 - 60	1