

Median from a Frequency Table

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Workout

Question 1: Work out the median from each of the frequency tables.

(a)

Age	Frequency
18	2
19	3
20	13
21	1

(b)

Shoe Size	Frequency
5	2
6	11
7	5
8	4
9	1

(c)

Number of TVs	Frequency
0	3
1	15
2	9
3	11
4	1

(d)

Days absent	Frequency
0	31
1	8
2	3
3	4
4	1
5	3

(e)

Age	Frequency
5	12
6	20
7	23
8	65

(f)

Goals Scored	Frequency
0	2
1	4
2	5
3	8
4	0
5	1

Question 2: Work out which class interval contains the median for each table below.

(a)

Time taken	Frequency
$0 < t \leq 5$	5
$5 < t \leq 10$	14
$10 < t \leq 15$	10
$15 < t \leq 20$	1

(b)

Lifetime (months)	Frequency
$0 < t \leq 12$	1
$12 < t \leq 24$	9
$24 < t \leq 36$	13
$36 < t \leq 48$	56
$48 < t \leq 60$	21

(c)

Mass (Kg)	Frequency
$50 < m \leq 60$	41
$60 < m \leq 70$	39
$70 < m \leq 80$	28
$80 < m \leq 90$	6
$90 < m \leq 100$	2

(d)

Mass (Kg)	Frequency
$0 < m \leq 100$	123
$100 < m \leq 200$	290
$200 < m \leq 300$	2009
$300 < m \leq 400$	1817
$400 < m \leq 500$	584
$500 < m \leq 600$	177

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Apply

Question 1: There are 30 students in a class.

Miss Williamson knows that the median shoe size is 5.

Fill in the frequency table with two possible values.

Shoe Size	Frequency
4	4
5	
6	
7	10

Question 2: The frequency table shows the piano grade of 17 students in a class.

Grade	Frequency
2	3
3	3
4	4
5	3
6	2
7	2

3 new students, who are all Grade 6, join the class.

The teacher says the median piano grade will increase.

Is she correct?