

Mathematics

Median from Frequency tables worksheet

Mr Millar



Try this

Yasmin asks 15 students in her year how many siblings they have.
Here are her results:
How would you find the median?

Number of Siblings	Tally	Frequency
0	III	
1	IIII I	
2	III	
3	I	
4		
5	II	

I could list the data...

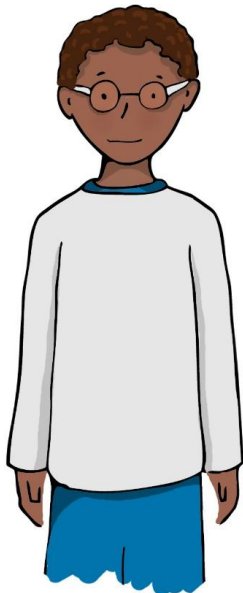


Connect

Two students are discussing how to find the median from this frequency table

Number of Bottles	Tally	Frequency
0	I	1
1	II	2
2	I	1
3	II	2
4	II	2

Since there are 8 in total, the median is the 4th piece of data, which is 2



No, you don't take the 4th piece of data!



Independent task

Which of these frequency tables have the same mode and median?

Number of Bottles	Frequency
0	2
1	3
2	50
3	4

Number of Bottles	Frequency
0	20
1	15
2	10
3	5

Number of Bottles	Frequency
0	10
1	20
2	20
3	10



Independent task

Leela asks a sample of her year group how tall they are. Here are her results:

145, 150, 140, 140, 145, 155, 145, 140, 150, 145

Put the following data into a frequency table and find the mode and median.

Height (cm)	Tally	Frequency
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Explore

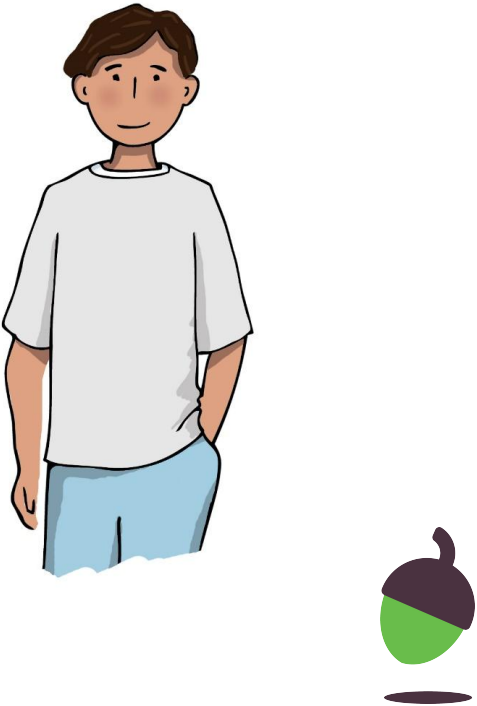
Antoni has collected the shoe sizes of his class, but has lost some of his results! He has lost 4 pieces of data.

Here are the results that he has so far.
5.5, 5.0, 4.5, 4.5, 5.0, 4.0, 5.0, 5.5, 4.0, 3.5, 5.5

However he does know that with all the data included, his mode is 4.5, his median is 5.0 and the highest shoe size is 6.0.

Fill out what you can of the table already, and find out what the missing 4 pieces of data are

Shoe Size	Tally	Frequency
3.5		
4.0		
4.5		
5.0		
5.5		



Answers



Try this

Yasmin asks 15 students in her year how many siblings they have.
Here are her results:
How would you find the median?

Number of Siblings	Tally	Frequency
0	III	
1	IIII I	
2	III	
3	I	
4		
5	II	

Listing the data could help you find the mean (1).

However you know that if there are 15 pieces of data, there are 7 either side of the median, so the median is the 8th piece of data. You can clearly see from the table that this is 1.

I could list the data...



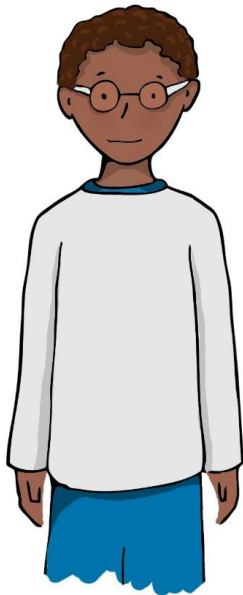
Connect

Two students are discussing how to find the median from this frequency table

Number of Bottles	Tally	Frequency
0	I	1
1	II	2
2	I	1
3	II	2
4	II	2

The median must lie between the 4th and 5th piece of data, so in this case it is 2.5

Since there are 8 in total, the median is the 4th piece of data, which is 2



No, you don't take the 4th piece of data!



Independent task

Which of these frequency tables have the same mode and median?

Number of Bottles	Frequency	Number of Bottles	Frequency	Number of Bottles	Frequency
0	2	0	20	0	10
1	3	1	15	1	20
2	50	2	10	2	20
3	4	3	5	3	10

Mode and median are both 2

Mode is 0 but median is 1

Mode is 1 and 2, median is 1.5



Independent task

Leela asks a sample of her year group how tall they are. Here are her results:

145, 150, 140, 140, 145, 155, 145, 140, 150, 145

Put the following data into a frequency table and find the mode and median.

Height (cm)	Tally	Frequency
140	III	3
145	IIII	4
150	II	2
155	I	1

Mode and median are both 145



Explore

Antoni has collected the shoe sizes of his class, but has lost some of his results! He has lost 4 pieces of data.

Here are the results that he has so far.
5.5, 5.0, 4.5, 4.5, 5.0, 4.0, 5.0, 5.5, 4.0, 3.5, 5.5

However he does know that with all the data included, his mode is 4.5, his median is 5.0 and the highest shoe size is 6.0.

Fill out what you can of the table already, and find out what the missing 4 pieces of data are

Shoe Size	Tally	Frequency
3.5	I	
4.0	II	
4.5	IIII	
5.0	III	
5.5	III	
6.0	II	

The 4 missing pieces of data are 4.5, 4.5, 6.0 and 6.0

