

Revision Of Averages

Find the mean,  
median, mode and  
range of these  
numbers:

~~12~~ ~~2~~ 3 / 5 \ 7 ~~15~~

$$\text{Range} = 15 - 1 = 14$$

$$\text{Mode} = 2 \quad (\underline{\text{most}})$$

$$\text{Mean} = \frac{3 + 5}{7} = 5$$

$$\text{Med} = 3$$

$$\begin{array}{r} 173 \\ 176 \end{array}$$

Write down 4 numbers with

- 1) a mean of 10
- 2) and a median of 9
- 3) and a mode of 8

8, 8, 10, 14

Range of 4 = 1, 5, 1, 5  
1, 2, 3, 5      2, 4, 5, 6

Mode of 4      4, 2, 4, 4

4 4 4 3      1, 2, 4, 4  
4, 4, 2, 9

1, 3, 5, 100

Median of 4      2, 3, 5, 6

3, 3, 5, 5

1, 3, 5, 9

4, 4, 4, 4

1, 1, 7, 1000

3, 4, 4, 6

3, 4, 4, 8

1, 2, 6, 10

4 numbers

Mode of 3      3,3,3,3  
                    3,3,3,5

Median of 3    1,2,4,5  
                    1,1,5,6

Range of 3     1,3    3,4  
                    2,3,5,5  
                    3,4,5,6  
9, 10, 11, 12

**For 10M7 find the**

- **range in foot size** 6
- **modal eye colour** blue
- **median no of TVs in your house**

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These four numbers have a mode of 5.  
Find the missing number.

2, 5, 3, ~~5~~

1, 2, 5, 10, 11

These five numbers have a median of 5.  
Find the missing number.

2, 5, 1, 10, ...

These five numbers have a range of 8.  
Find the missing number.

8, 12, 7, 10, ~~4~~

mode = 3

- 3, 3, 8, 2 (1)
- 3, 3, 2, 1 (2)
- 3, 3, 3, 3 (3)
- 3 3 6 1
- 3 3 1 5

Range = 3

- 7, 8, 9, 10 10-7=3
- 1, 3, 4, 4 4-1=3
- 1, 2, 3, 4 4-1=3
- 6, 3, 5, 4 6-3=3
- 12, 13, 14, 15

(5)

median = 5 2, 4, 5, 6, 8 6, 4, 5, 3, 1

- 5, 5, 5, 5, 5
- 2, 3, 5, 6, 7
- 3, 4, 5, 6, 10, 3

## The mean

Find the mean number of dogs owned  
by 10m7

$$\begin{array}{l} 0, 0, 0, 0 \\ 1, 1, 1, 1, 1, 1 \\ 2 \end{array} \quad \frac{8}{11} = 0.7272$$



Find the mean number of cats owned  
by 10m7



$$\begin{array}{l} 0, 0, 0, 0, 0, 0, 0, 0 \\ 1, 1, 1, 1, 1, 1, 1, 1, 1, 1 \\ 2 \end{array} \quad \frac{8}{12} = \frac{2}{3}$$

Mean =  $\frac{\text{total}}{\text{number of people in survey}}$

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## Averages

Mode means most often

Median means middle number  
when they are in order  
biggest - smallest

Range means

10 students were asked how many of these activities they did after school or at the weekend.

go to the gym	swimming	horse riding
football	dance	athletics
	cycling	tennis

These are the results:

0, 0, 0, 1, 1  
2, 2, 2, 3, 5



Find the mean, median, mode and range for the activities.

mean =  $\frac{16}{10} = 1.6$  mode = There is no mode  
median = 1.5 range =  $5 - 0 = 5$

10 more students were asked and now the results are

mode = none  
range =  $6 - 0 = 6$   
0, 0, 0, 0, 0,  
1, 1, 1, 1, 1,  
2, 2, 2, 2, 2,  
4, 4, 4, 5, 6

You could add all these up, or you could try and think of a shortcut..



Find the mean, median, mode and range for this set of data.

mean =  $\frac{38}{20} = 1.9$   
median = 1.5

number	freq	
0	5	$5 \times 0 = 0$
1	5	$5 \times 1 = 5$
2	5	$5 \times 2 = 10$
3	3	$3 \times 0 = 0$
4	3	$4 \times 3 = 12$
5	1	$5 \times 1 = 5$
6	1	$6 \times 1 = 6$

mean =  $\frac{38}{20} = 1.9$  Total  $\frac{20}{38}$

20 children were asked what they thought of PE.  
They had to give it a mark out of 5 (5/5 being brilliant).

### These were the responses:

5 marks	7 children
4 marks	5 children
3 marks	4 children
2 marks	2 children
1 mark	2 children



Find the mean score.

Fill in the table:

Marks	frequency	
1		
2		
3		
4		
5		

On average, how many portions of fruit and veg do we eat each day?

Mean Of Data



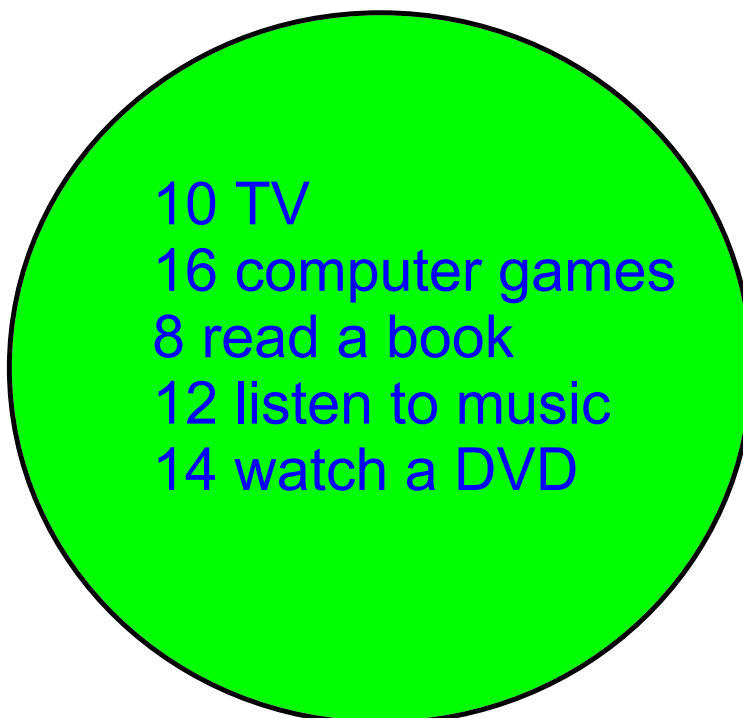
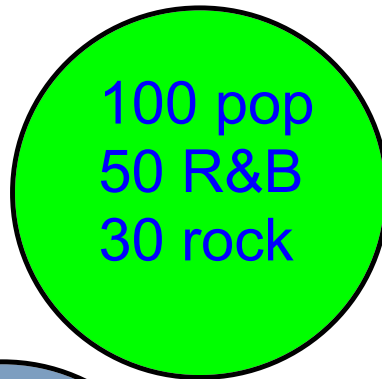
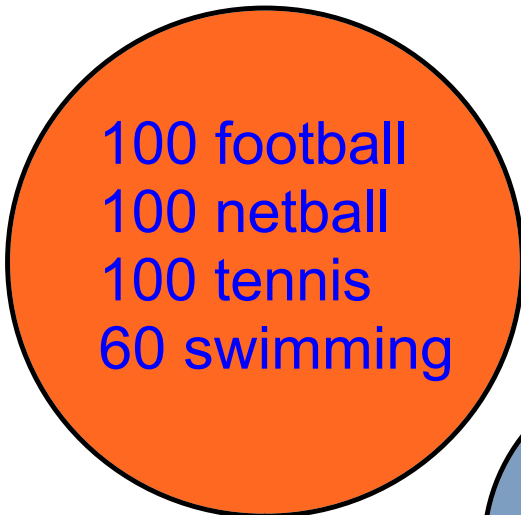
number	tally	total	no x freq
0	11	2	$0 \times 2 = 0$
1	111	3	$1 \times 3 = 3$
2	<del>1111</del>	5	$2 \times 5 = 10$
3	11	2	$3 \times 2 = 6$
4	111	3	$4 \times 3 = 12$
5	11	2	$5 \times 2 = 10$
6	1	1	$6 \times 1 = 6$

mean =  $\frac{47}{18} = \underline{\underline{2.6118}}$

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# Pie Charts

Draw pie charts for the following data:



## Attachments

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dirtydata-1.doc

8734602-StBedesInter-ChurchSchool-Phase6Secondary.xls