

These 5 kittens weigh
500, 550, 600, 600, 750
grams.



Find

- the mode
- the median
- the mean
- and the range in weights

$$600g$$

$$600g$$

$$\frac{3000}{5} = 600g$$

$$750 - 500 = 250$$

8.5, 12.5, 9, 20

Revision Of Averages

8, 12, 17, 3

2, 28, 5, 5

11, 9, 15, 5

Write down 4 numbers with

1) a mean of 10 10, 10, 10, 10

9, 9, 9, 9
- 8, 0, 18, 27

2) and a median of 9

1, 7, 11, 12

5, 8, 10, 12

7, 8, 10, 11

8, 8, 8, 8

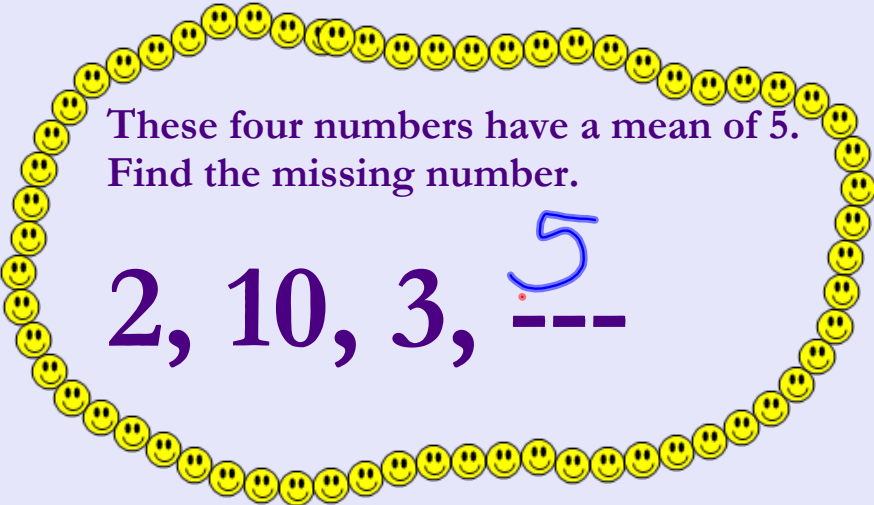
3) and a mode of 8

8, 1, 4, 8

7, 1, 8, 8

7, 8, 10, 11
- 72
8
107

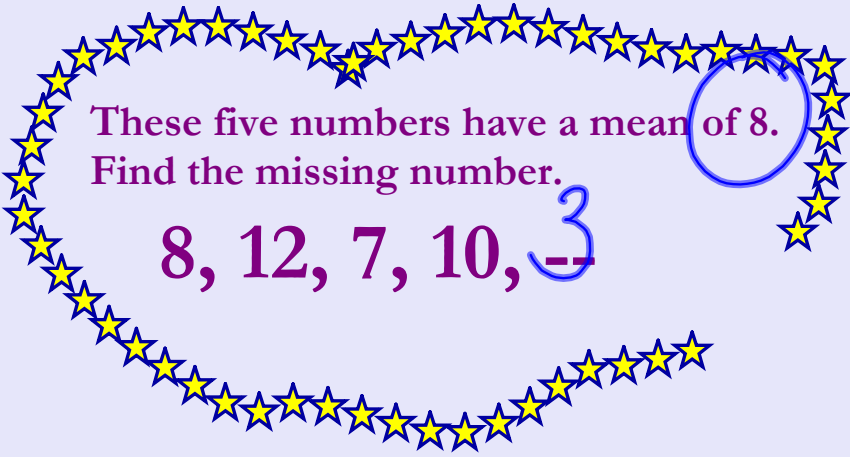
8, 8, 10, 14



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

2, 10, 3, 5---

40



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

8, 12, 7, 10, 3---

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



Handwritten annotations: a diagonal line with '1.5' above it and '-5' below it.

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

Handwritten annotations: '1.6' with a vertical line above it, and 'none' with a diagonal line above it.

10 more students were asked and now the results are

0, 0, 0, 0, 0,
1, 1, 1, 1, 1,
2, 2, 2, 2, 3,
3, 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.

no.	freq	no x freq	
0	5	0 x 5	0
1	4	1 x 4	4
2	2	2 x 2	4
3	2	3 x 2	6
4	1	4 x 1	4
5	1	5 x 1	5
6	1	6 x 1	6
Total		20	38
Mean =		$\frac{38}{20} = 1.9$	

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.

$$73 \div 20 = 3.65$$



Fill in the table:

Marks	frequency	
1		
2		
3		
4		
5		

How to find the Mean number of shoes from a table

How many pairs of shoes do you own?



number	frequency Tally	no x freq total
1		1 x 1
2		
3		
4		
5	2	
6	2	
7	4	
8	4	
9	5	

10

6

$$\underline{27}$$

$$\underline{197}$$

$$\text{mean} = \frac{197}{27} = 7.3 \text{ shoes}$$

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modal = 10 pairs

Range = 10 - 1 = 9 pairs

Median has 7 pairs

To find the middle "person" add the two end numbers together and divide by 2.

Eg The nos 1-7 .

$$\text{The middle no is } \frac{1+7}{2} = \frac{8}{2} = 4$$

or 4-16

The middle person is

$$\frac{4+16}{2} = \frac{20}{2} = 10\text{th person}$$

How to find the Mean Of Continuous Data

On average, how much homework do we do in an evening?



number	frequency	midpt x freq	
$0 < m \leq 30$	6	6×15	90
$30 < m \leq 60$	4	4×45	180
$60 < m \leq 90$	4	4×75	300
$90 < m \leq 120$	10	10×105	1050
$120 < m \leq 150$	1	1×135	135
	<hr/>		<hr/>
	25		1755

Estimate of mean: $\frac{1755}{25} = 70.2$ minutes

modal class is $90 < m \leq 120$ **Page 4**

Estimate of range = $150 - 0 = 150$ mins

Class in which median lies $60 < m < 90$

World data

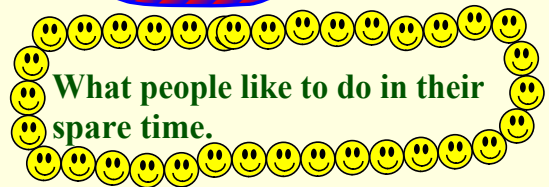
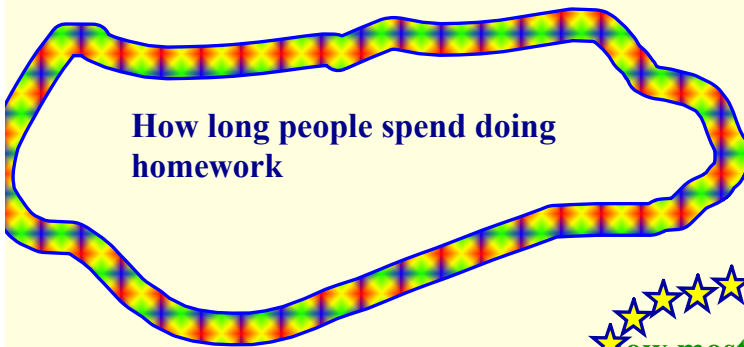
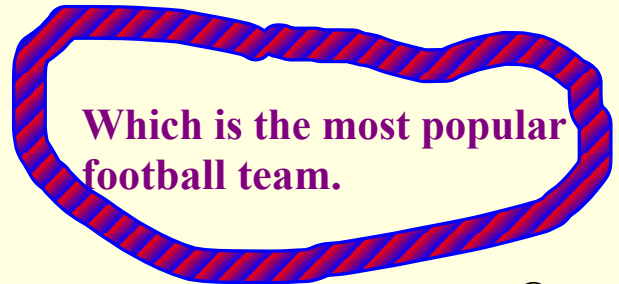
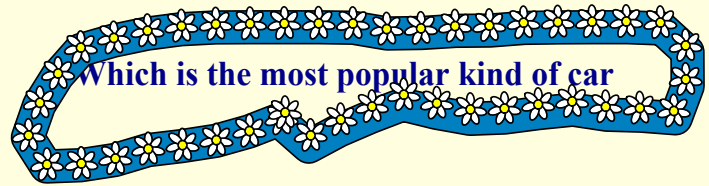
I want to find out if people dislike sport as much as me.

- 1. How old are you? young, middle aged or old?**
- 2. Do you think sport is a waste of time?**
- 3. Do you think football players are paid too much, and it would be better to give the money to the poor?**
- 4. Do you agree that it is wrong to make all students do sport?**
- 5. Does sport mess up your make up?**

Writing a questionnaire

Write a survey with 3 questions to find out if people like sport.

Write a question to find out:



Remember to think about

- the people you sample (you need a cross-range)
- not to embarrass the people you ask
- you want to get an honest answer so try not to ask leading questions
- try to ask a range of questions..don't be too direct
- A tick box question is the best.

Use the worksheet to criticize our surveys.

Attachments

dirtydata-1.doc

8734602-StBedesInter-ChurchSchool-Phase6Secondary.xls