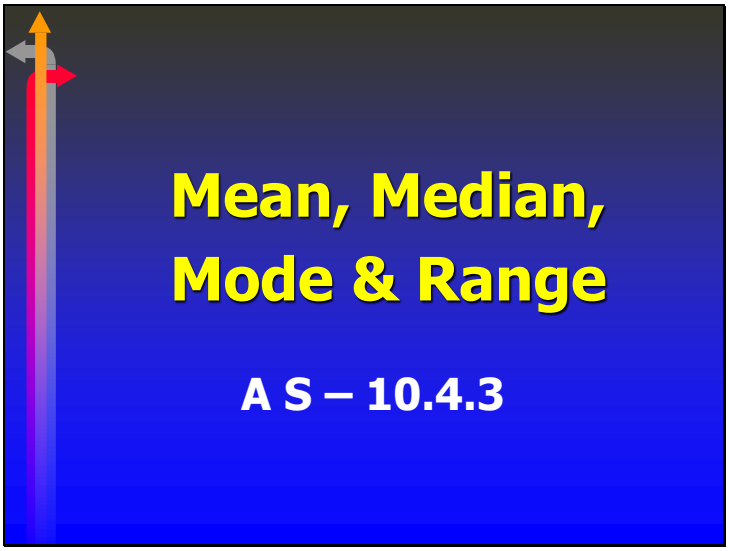
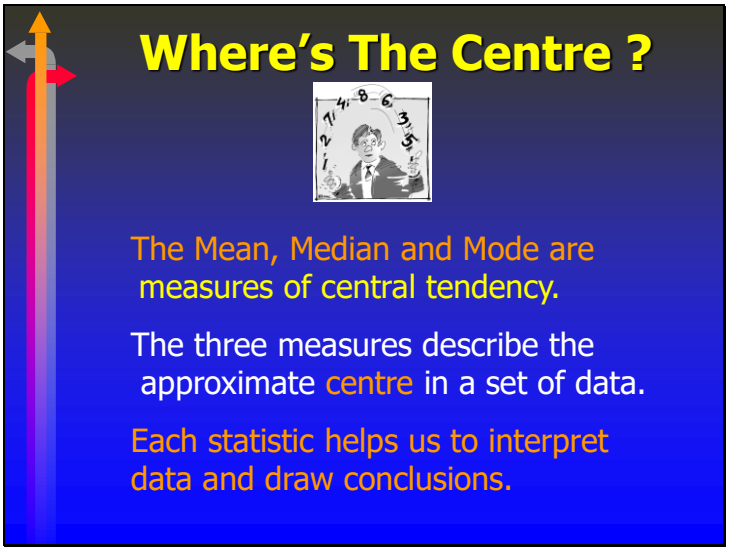
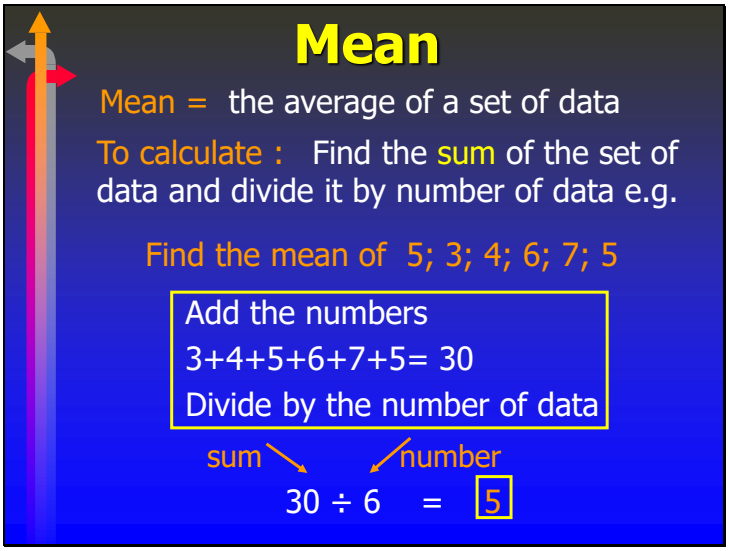
Slide 1



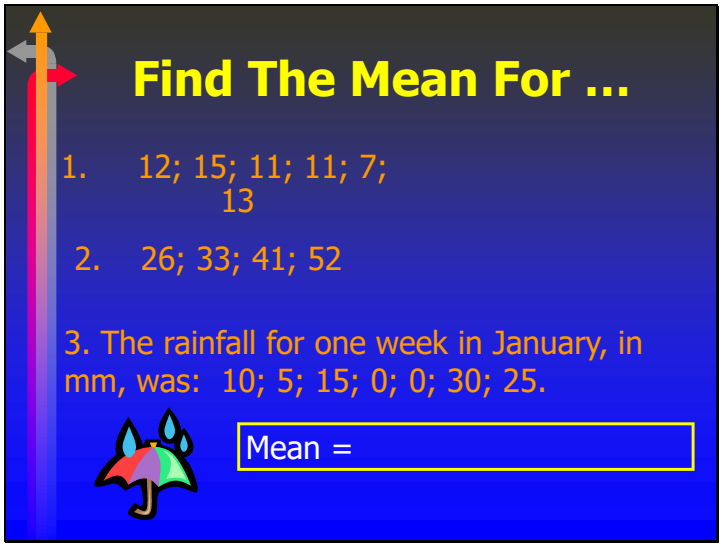
Slide 2


Where's The Centre ?
The Mean, Median and Mode are measures of central tendency.
The three measures describe the approximate centre in a set of data.
Each statistic helps us to interpret data and draw conclusions.

Slide 3


Mean
Mean = the average of a set of data
To calculate : Find the sum of the set of data and divide it by number of data e.g.
Find the mean of 5; 3; 4; 6; 7; 5
Add the numbers
3+4+5+6+7+5= 30
Divide by the number of data
sum
number
30 ÷ 6 = 5

Slide 4


Find The Mean For ...
1. 12; 15; 11; 11; 7; 13
2. 26; 33; 41; 52
3. The rainfall for one week in January, in mm, was: 10; 5; 15; 0; 0; 30; 25.
Mean =

Slide 5

The frequency table shows the score out of 5 by a class in a maths test. Calculate the mean.

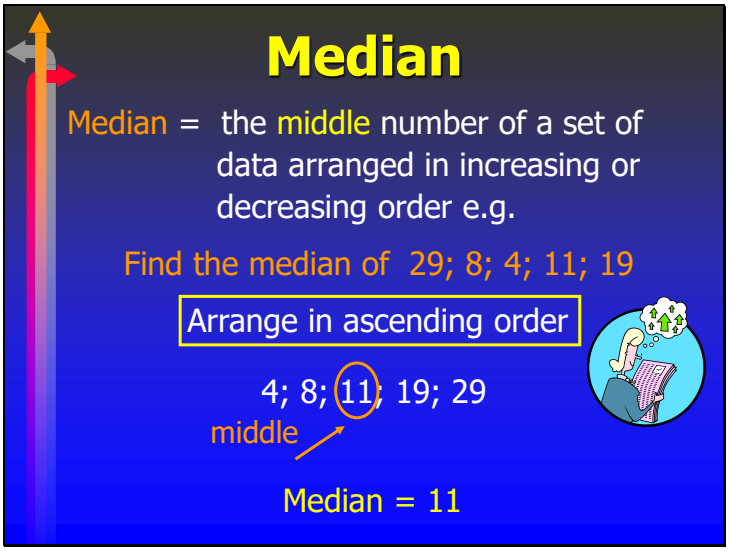
Test score	0	1	2	3	4	5	total
Frequency	1	2	3	2	3	5	16
Freq x score	0	2	6	6	12	25	51

Total: marks

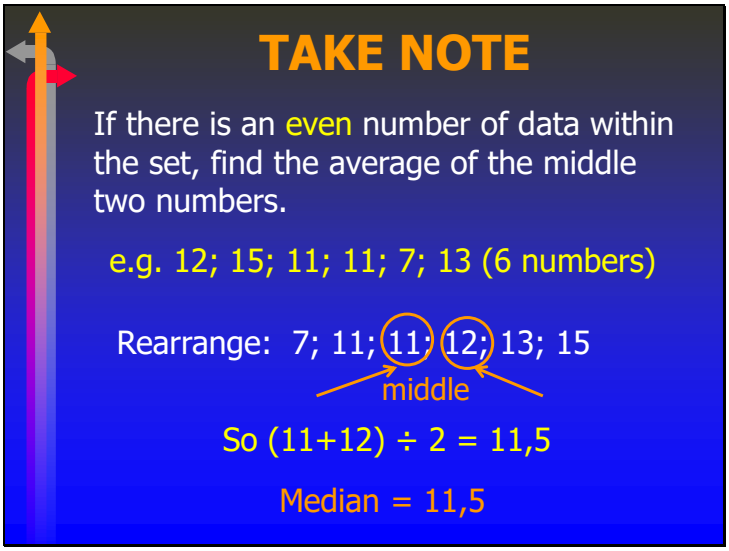
Total: pupils

Mean = 51 ÷ 16 = 2,88 (2 d.p.)

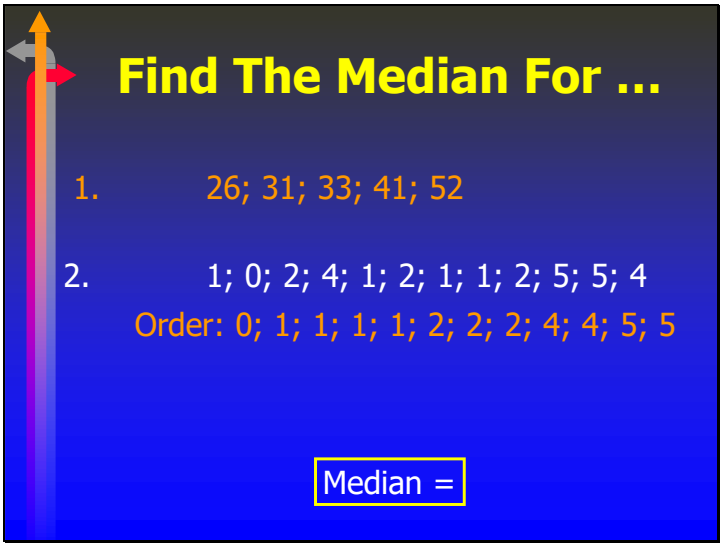
Slide 6


Median
Median = the middle number of a set of data arranged in increasing or decreasing order e.g.
Find the median of 29; 8; 4; 11; 19
Arrange in ascending order
4; 8; 11; 19; 29
middle
Median = 11

Slide 7


TAKE NOTE
If there is an even number of data within the set, find the average of the middle two numbers.
e.g. 12; 15; 11; 11; 7; 13 (6 numbers)
Rearrange: 7; 11; 11; 12; 13; 15
middle
So (11+12) ÷ 2 = 11,5
Median = 11,5

Slide 8


Find The Median For ...
1. 26; 31; 33; 41; 52
2. 1; 0; 2; 4; 1; 2; 1; 1; 2; 5; 5; 4
Order: 0; 1; 1; 1; 1; 2; 2; 2; 4; 4; 5; 5
Median =

Slide 9

One dice was rolled 60 times and the results recorded in a table. Calculate the median.

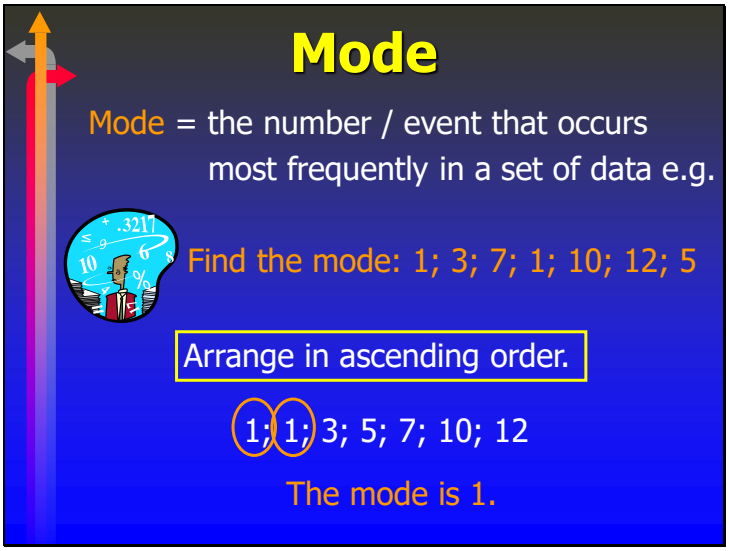
score	1	2	3	4	5	6
frequency	12	11	8	12	7	10

Note: middle ± after dice rolled 30 times

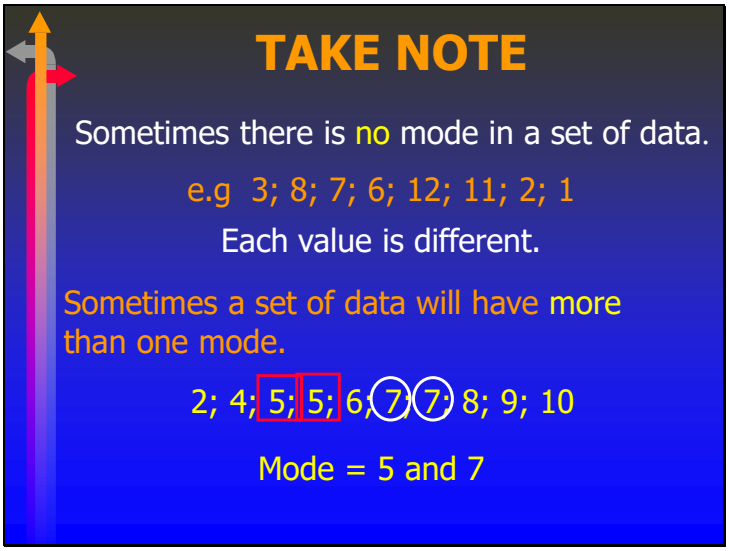
From left: 12+11+8 = 31 rolls
From right: 10+7+12 =29 rolls
Middle has a score of 3

Median = 3

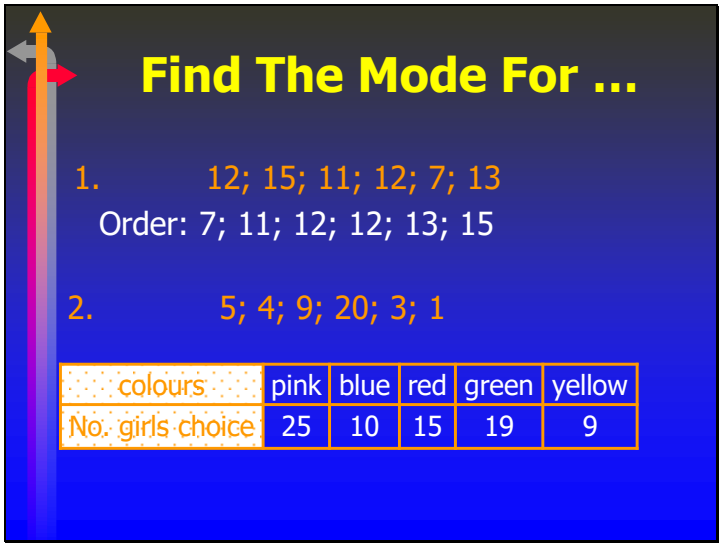
Slide 10


Mode
Mode = the number / event that occurs most frequently in a set of data e.g.
Find the mode: 1; 3; 7; 1; 10; 12; 5
Arrange in ascending order.
1; 1; 3; 5; 7; 10; 12
The mode is 1.

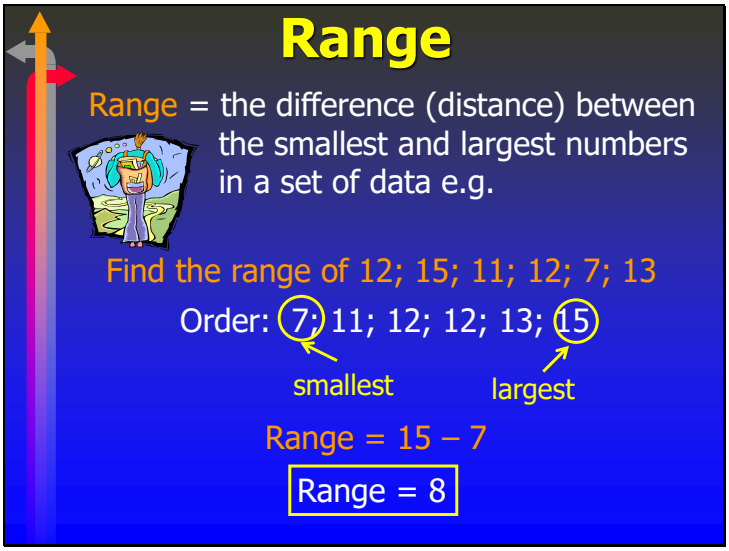
Slide 11


TAKE NOTE
Sometimes there is no mode in a set of data.
e.g 3; 8; 7; 6; 12; 11; 2; 1
Each value is different.
Sometimes a set of data will have more than one mode.
2; 4; 5; 5; 6; 7; 7; 8; 9; 10
Mode = 5 and 7

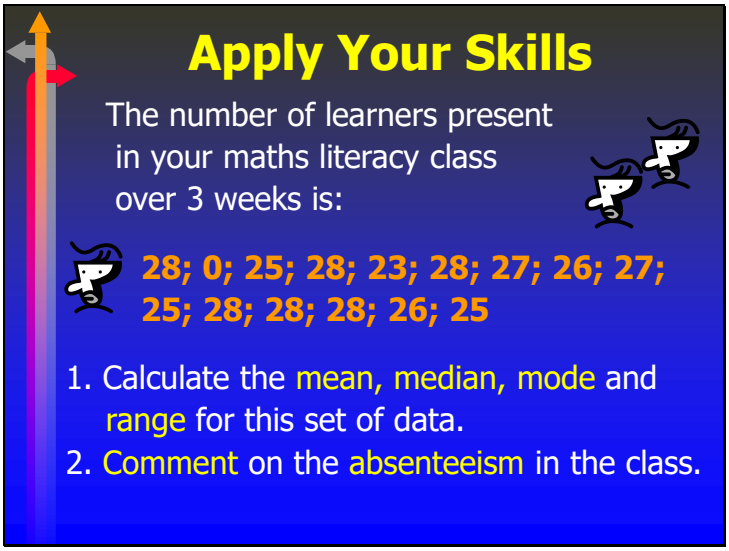
Slide 12


Find The Mode For …
1. 12; 15; 11; 12; 7; 13
Order: 7; 11; 12; 12; 13; 15
2. 5; 4; 9; 20; 3; 1
colours | pink | blue | red | green | yellow
No. girls choice | 25 | 10 | 15 | 19 | 9

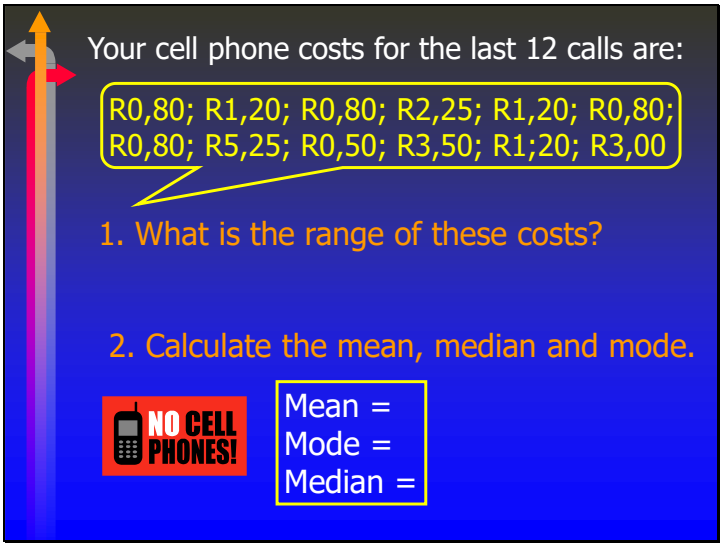
Slide 13


Range
Range = the difference (distance) between the smallest and largest numbers in a set of data e.g.
Find the range of 12; 15; 11; 12; 7; 13
Order: 7; 11; 12; 12; 13; 15
smallest
largest
Range = 15 – 7
Range = 8

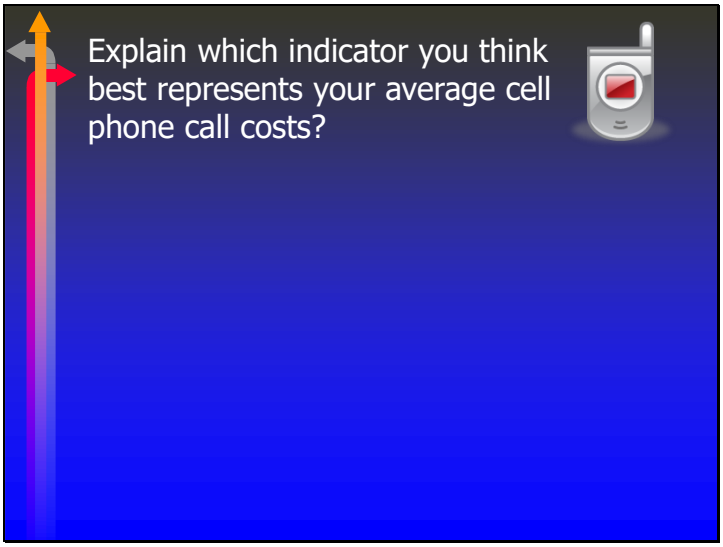
Slide 14


Apply Your Skills
The number of learners present in your maths literacy class over 3 weeks is:
28; 0; 25; 28; 23; 28; 27; 26; 27; 25; 28; 28; 28; 26; 25
1. Calculate the mean, median, mode and range for this set of data.
2. Comment on the absenteeism in the class.

Slide 16


Your cell phone costs for the last 12 calls are:
R0,80; R1,20; R0,80; R2,25; R1,20; R0,80;
R0,80; R5,25; R0,50; R3,50; R1;20; R3,00
1. What is the range of these costs?
2. Calculate the mean, median and mode.
NO CELL PHONES!
Mean =
Mode =
Median =

Slide 17


Explain which indicator you think best represents your average cell phone call costs?