

Statistics Statements

True? False? Or Sometimes True?

Aims

- to help learners review, discuss and clarify a broad range of statistical ideas relevant to KS3
- to give learners time for reflection

Activity

In pairs:

- Take a card.
- Ensure that you understand exactly what it is saying
- Discuss and decide if the statement on the card is either
 - FALSE,
 - TRUE
 - or is
 - SOMETIMES TRUE under certain conditions or circumstances.

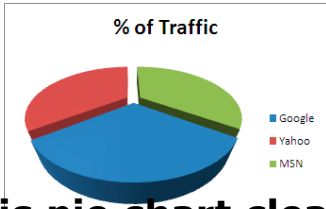
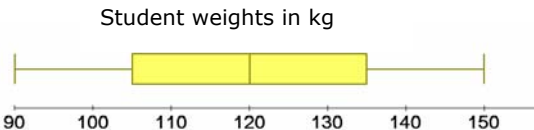
Stick the card onto a poster along with your written explanation of why you believe it to be true or false or if it is sometimes true then what conditions etc are needed for it to be true.

Conclusion

Each pair will be asked to choose one particular card – say which category they have placed it in and why they believe it goes there.

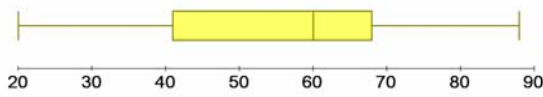


Card Set – True False or Sometimes True

<p>A</p> <p>Primary data is information that I have collected myself</p>	<p>B</p>  <p>This pie chart clearly shows that Google has more traffic than the others</p>			
<p>C</p> <p>The mean is a more accurate average of my data because it is calculated rather than using the median or mode</p>	<p>D</p> <p>A good test would be one where everyone ends up with an above average score.</p>			
<p>E</p> <p>It can either rain or be nice tomorrow so there is a 50% chance that it will rain</p>	<p>F A girl collected results from 50 Rugby Union matches.</p> <table border="1" data-bbox="1054 1220 1347 1339"> <tr> <td>Home wins – 35</td> </tr> <tr> <td>Away wins – 5</td> </tr> <tr> <td>Draws – 10</td> </tr> </table> <p>The probability of a home win is not 1 in 3</p>	Home wins – 35	Away wins – 5	Draws – 10
Home wins – 35				
Away wins – 5				
Draws – 10				
<p>G</p> <p>It is more likely that I will get a head when I throw a coin than a 6 when I throw a dice</p>	<p>H</p>  <p>75% of the students represented weigh between 105 and 135kg</p>			

I

Weight of apples in grams

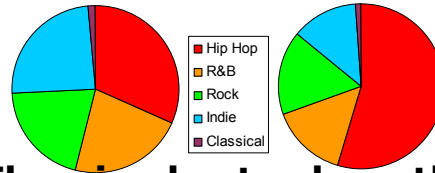


The mean weight of the apples is 60g

J

Favourite music in 2002

Favourite music in 2008

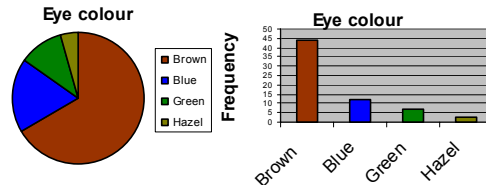


The pie charts show that there are more people who like Hip hop in 2008 than in 2002

K

The median of the results 2,3,2,7,10,5 is found by:
Ordering them: 2,3,5,7,10
and then finding the middle: 2,3,5,7,10
Median = 5

L



These graphs illustrate the same data

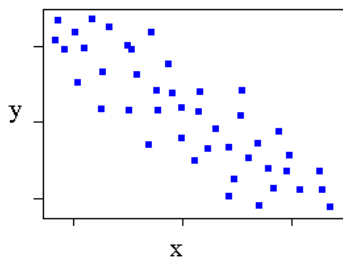
M

A large sample always gives better estimates regardless of how it is chosen

N

The mean, median and mode of a dataset are always equal

O



This indicates that negative correlation exists between x & y

P

Throwing a double six with a pair of dice is less likely than any other combination