

# Misleading Statistics

Statistics is the practice of collecting, organizing, and representing large amounts of numerical data.

These are used to present summarised information to large volumes of people, often people who would not understand the raw data itself.

Misleading Statistics can come in the form of numerical values or statistical diagrams.

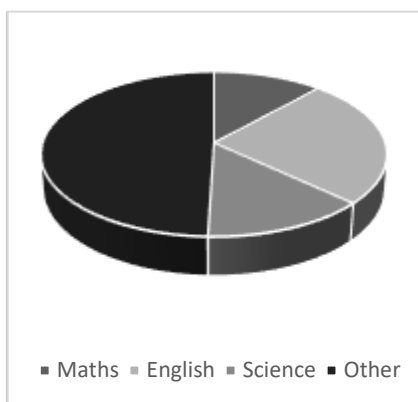
- Misleading statistics are never false
- They are usually vague statements that use basic statistics
- They are true statistics that have been manipulated to show only certain information and hide other parts.
- They are used to make things appear better or more popular than they really are (or vice versa)

## Misleading diagrams

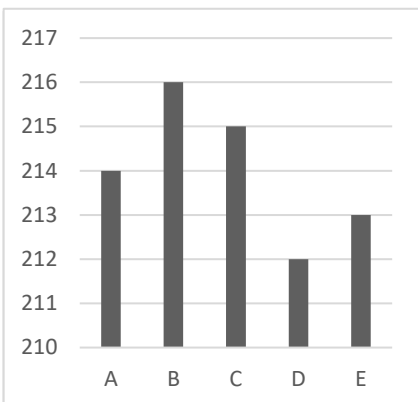
What to look for (these are all negative points)

1. Missing labels on axis
2. Scales not starting at zero
3. Unequal gaps between equal numbers
4. 3D graphs
5. Incorrectly calculated angles
6. Percentages that don't add up to 100%
7. Different scales used for comparing graphs
8. No key where necessary

For each of the following statistical diagrams, tick the options which make them misleading



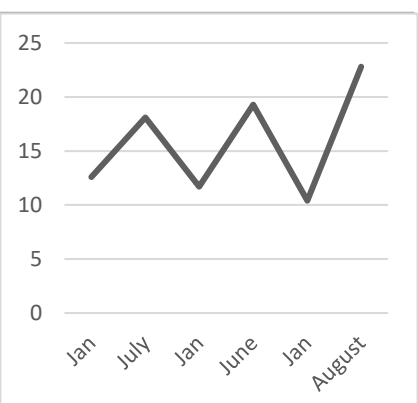
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1	2	3	3	5
2	2	5	8	
3	1	1	1	2
4	2	4	7	8
5	0	2		
6	1	5	6	9
7	0			

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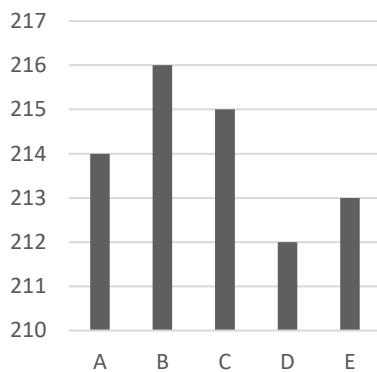
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## Solutions



■ Maths ■ English ■ Science ■ Other

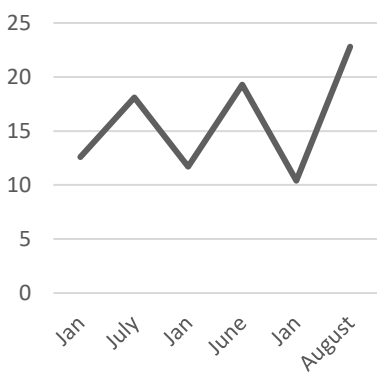
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1	2 3 3 5
2	2 5 8
3	1 1 1 2
4	2 4 7 8 9
5	0 2
6	1 5 6 9
7	0

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