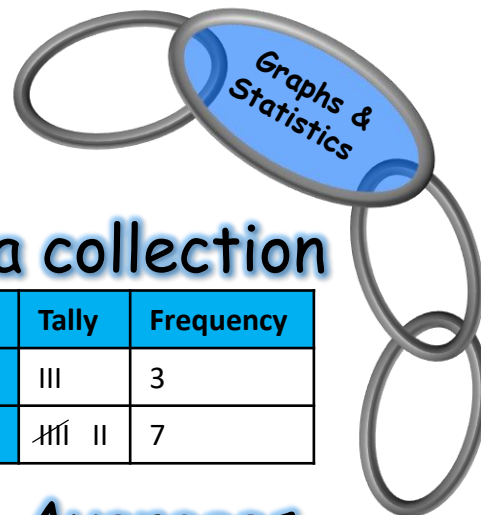


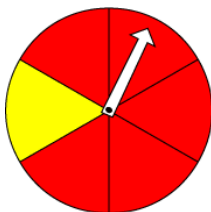
# Graphs and Statistics



## Sample size

Remember the **larger** a **sample**, the **more accurate** the data.

Make sure your sample isn't **biased** (unfair).



### Random

e.g. Select names out of a hat.

## Questionnaire and survey

### Checklist

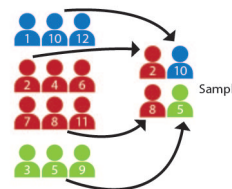
- ☐ Unbiased.
- ☐ Not vague.
- ☐ Not personal.
- ☐ Time frame in the question.
- ☐ Three or more category options.
- ☐ Categories don't overlap.
- ☐ 'None', 'other' and 'more' categories included when appropriate.



## Types of sampling

### Stratified

Selects proportional amount of people from each group.



## Data collection

Event	Tally	Frequency
Red	III	3
Blue	II	7

## Averages

**Median** - Middle value.

**Mode** - Most common value.

**Mean** - Add all the values together then divide by how many there are.

**Range** - Subtract the smallest from the largest value (tells you about the consistency of the results).

$$\text{Proportion of people} = \frac{\text{Group size}}{\text{Population}} \times \text{Sample size}$$