Repeating chance experiments

Probability · VC2M4P02

Repeated trials help us observe chance and variation.

Two experiments: 20 coin flips each

Set 1	12 heads	8 tails
Set 2	9 heads	11 tails

Same chances. Different results!

☆ Plan and repeat

Flip a fair coin 20 times; each flip is one trial.
Keep the method the same for every trial.
Predict possible outcomes: heads or tails.

☆ Record every outcome

Use tally marks for heads and tails as you go.
Example: 12 heads + 8 tails = 20 trials.
Check that your counts add to the number of trials.

☆ Compare repeated experiments

Repeat 20 flips; an example result is 9 heads and 11 tails.
These example sets total 40 flips: 21 heads and 19 tails.
Different counts with the same rules show chance variation.

☆ Think about a game

On a fair die, 1, 2, 3 wins for A; 4, 5, 6 wins for B.
Both players have 3 equally likely winning outcomes.
Play 20 rounds, repeat, then compare the numbers of A and B wins.

Remember...

Equal chances do not guarantee equal counts.
More trials usually give a clearer pattern, not certainty.