Repeating chance trials

6 questions | 10 marks

Equivalent correct methods earn the corresponding marks.

1. In a coin experiment, what could count as one trial? [1 mark]

Each repeat has one recorded outcome.

Answer: One toss of the coin.

2. Count heads in H, T, H, T, T, H, H, T. [1 mark]

Heads occur in positions 1, 3, 6 and 7.

Answer: 4 heads.

3. Eight trials give three red results and only red/blue outcomes. How many results are blue? [1 mark]

$8 - 3 = 5.$

Answer: 5.

4. Why should a counter be replaced in every trial if the aim is to keep bag contents unchanged? [2 marks]

Without it, later trials use different contents.

Answer: Replacement restores the starting collection.

5. A learner tosses a coin ten times but records only nine results. What should the learner do? [2 marks]

Do not invent an outcome to fill the gap.

Answer: Check the record and report the missing result honestly; repeat the planned experiment if necessary.

6. Plan a twelve-trial bag experiment. State the setup, trial rule and recording method. [3 marks]

Other clear fair setups are valid when the same rule is followed.

Answer: For example: use 2 red and 2 blue equal counters, draw without looking, record colour, replace and mix, repeat 12 times in a tally table.