Probability

IGCSE Mathematics · Vocabulary in context

Word	Example
probability /ˌprɒbəˈbɪlɪti/	A fair coin gives **probability** one half for heads.
event /ɪˈvent/	Getting a six is an **event**.
outcome /ˈaʊtkʌm/	Getting heads is one **outcome**.
relative frequency /ˈrelətɪv ˈfriːkwənsi/	The **relative frequency** is the count divided by the total.
fair /feə/	A **fair** coin is equally likely to land heads or tails.
bias /ˈbaɪəs/	**Bias** can distort results even with a large sample.
random /ˈrændəm/	Decay is **random**: we cannot say which nucleus decays next.
expected frequency /ekˈspektɪd ˈfriːkwənsi/	The **expected frequency** is the count we would expect if the model is true.
combined events /kəmˈbaɪnd ɪˈvents/	**Combined events** involve two or more things happening.
independent events /ˌɪndɪˈpendənt ɪˈvents/	Two coin tosses are **independent events**.
mutually exclusive /ˈmjuːtʃuːəli eksˈkluːsɪv/	**Mutually exclusive** outcomes cannot occur together.

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sample space diagram /ˈsæmpl speɪs ˈdaɪəgræm/	A **sample space diagram** lists all possible outcomes.
Venn diagram /ven ˈdaɪəgræm/	A **Venn diagram** shows events as circles that may overlap.
tree diagram /triː ˈdaɪəgræm/	A **tree diagram** shows each stage of a probability problem.
with replacement /wɪð rɪˈpleɪsmənt/	**With replacement**, the ball goes back in the bag.
without replacement /wɪˈðaʊt rɪˈpleɪsmənt/	**Without replacement**, the ball stays out.
conditional probability /kənˈdɪʃənl ˌprɒbəˈbɪlɪti/	Find the **conditional probability** using only the chosen group.