Statistics 3

Pearson Edexcel · International A-Level · Further Mathematics · Vocabulary in context

Word	Example
simple random sample /ˈsɪmpl ˈrændəm ˈsæmpl/	In a **simple random sample**, every group of the same size is equally likely.
systematic sampling /ˌsɪstəˈmætɪk ˈsæmplɪŋ/	In **systematic sampling**, we choose every tenth name on a list after a random start.
stratified sampling /ˈstrætɪfaɪd ˈsæmplɪŋ/	In **stratified sampling**, each group is sampled in proportion to its size.
quota sampling /ˈkwəʊtə ˈsæmplɪŋ/	In **quota sampling**, the interviewer asks a fixed number from each group, but chooses who.
statistic /stəˈtɪstɪk/	A **statistic** is a number worked out from a sample, such as a sample mean.
unbiased /ʌnˈbaɪəst/	An **unbiased** estimate is right on average.
bias /ˈbaɪəs/	**Bias** comes from a bad design; a bigger sample cannot fix it.
standard error /ˈstændəd ˈerə/	The **standard error** shows how much the sample mean might vary.
Central Limit Theorem /ˈsentrəl ˈlɪmɪt ˈθɪərəm/	The **Central Limit Theorem** says sample means are roughly normal for large samples.
confidence interval /ˈkɒnfɪdəns ˈɪntəvl/	A narrow **confidence interval** means the estimate is precise.

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hypothesis test /haɪˈpɒθəsɪs test/	The **hypothesis test** found no evidence against the 30-minute claim.
critical value /ˈkrɪtɪkl ˈvæljuː/	The **critical value** is the edge of the critical region.
goodness of fit /ˈgʊdnəs ɒv fɪt/	A **goodness of fit** test checks whether data match a model.
expected frequency /ekˈspektɪd ˈfriːkwənsi/	The **expected frequency** is the count we would expect if the model is true.
degrees of freedom /dɪˈgriːz ɒv ˈfriːdəm/	The **degrees of freedom** tell you which row of the table to use.
contingency table /kənˈtɪndʒənsi ˈteɪbl/	A **contingency table** shows counts for two variables.
Spearman's rank correlation coefficient /ˈspɪəmənz ræŋk ˌkɒrɪˈleɪʃn ˌkəʊɪˈfɪʃənt/	**Spearman's rank correlation coefficient** compares two rankings.

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