# Statistics 2

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

| Word | Example |
|---|---|
| **binomial distribution** /baɪˈnəʊmɪəl ˌdɪstrɪˈbjuːʃn/ | A **binomial distribution** counts the number of heads in 20 coin tosses. $20$ |
| **Poisson distribution** /ˈpɔɪsn ˌdɪstrɪˈbjuːʃn/ | The **Poisson distribution** models random events, such as calls per hour. |
| **continuity correction** /kɒntɪˈnjuːɪti kəˈrekʃn/ | Use a **continuity correction** when you use a normal curve for whole-number data. |
| **probability density function** /ˌprɒbəˈbɪlɪti ˈdensɪti ˈfʌŋkʃn/ | A **probability density function** describes a continuous random variable. |
| **cumulative distribution function** /ˈkjuːmjʊlətɪv ˌdɪstrɪˈbjuːʃn ˈfʌŋkʃn/ | A **cumulative distribution function** gives $\mathrm{P}(\mathrm{X} \leq \mathrm{x})$. $\mathrm{P}(\mathrm{X} \leq \mathrm{x})$ |
| **median** /ˈmiːdiːən/ | Put the values in order before you find the **median**. |
| **mode** /məʊd/ | The **mode** is the most common value. |
| **continuous uniform distribution** /kənˈtɪnjuːəs ˈjuːnɪfɔːm ˌdɪstrɪˈbjuːʃn/ | In a **continuous uniform distribution**, every value in the range is equally likely. |
| **census** /ˈsensəs/ | A **census** asks every member of the population, not just a sample. |
| **sample** /ˈsæmpl/ | A **sample** is a small group taken from a population. |



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| **sampling frame** /ˈsæmplɪŋ freɪm/ | A **sampling frame** lists the units available for selection. |
| **statistic** /stəˈtɪstɪk/ | A **statistic** is a number worked out from a sample, such as a sample mean. |
| **sampling distribution** /ˈsæmplɪŋ ˌdɪstrɪˈbjuːʃn/ | The **sampling distribution** shows how a statistic varies from sample to sample. |
| **hypothesis test** /haɪˈpɒθəsɪs test/ | The **hypothesis test** found no evidence against the 30-minute claim. $30$ |
| **null hypothesis** /nʌl haɪˈpɒθəsɪs/ | The **null hypothesis** specifies the parameter value being tested. |
| **critical region** /ˈkrɪtɪkl ˈriːdʒn/ | If the test statistic is in the **critical region**, reject the null hypothesis. |
| **significance level** /sɪgˈnɪfɪkəns ˈlevl/ | Set the **significance level** before looking at the observed result. |