

Historical Milestones in Statistics

Statistics · Answer Key · 15 Questions

1. What 17th-century mathematician is often credited with developing early concepts of probability by analyzing games of chance, laying groundwork for statistical inference?

- A) Isaac Newton
- B) Gottfried Wilhelm Leibniz
- C) Blaise Pascal**
- D) René Descartes

2. Which pioneering statistician, known for his work in biometry, developed the concept of correlation and regression, heavily influencing the study of heredity?

- A) Karl Pearson
- B) Francis Galton**
- C) Ronald Fisher
- D) Adolphe Quetelet

3. The development of the first census is often attributed to ancient civilizations. Which empire is recorded as conducting a comprehensive census for taxation and military purposes around 750 BCE?

- A) Roman Empire
- B) Persian Empire**
- C) Egyptian Empire
- D) Han Dynasty China

4. Who is widely regarded as the 'father of modern statistics' for his significant contributions to experimental design, analysis of variance (ANOVA), and maximum likelihood estimation?

- A) William Sealy Gosset
- B) Jerzy Neyman
- C) Ronald Fisher**
- D) Egon Pearson

5. What statistical distribution, named after a German mathematician, describes the probability of a given number of events occurring in a fixed interval of time or space?

- A) Binomial Distribution
- B) Normal Distribution
- C) Poisson Distribution**
- D) Exponential Distribution

6. Which influential publication by Florence Nightingale in the mid-19th century used statistical diagrams to advocate for sanitary reforms in hospitals?

A) Notes on Hospitals

B) Diagrams of the Causes of Mortality

C) The Art of Healing

D) Sanitary Science Review

7. The concept of the 'standard deviation' as a measure of dispersion was popularized by which statistician?

A) Karl Pearson

B) Francis Galton

C) Adolphe Quetelet

D) Carl Friedrich Gauss

8. What significant event in the 18th century led to the development of actuarial science and life tables, influencing early statistical applications?

A) The Industrial Revolution

B) The Enlightenment

C) The Great Fire of London

D) The discovery of new trade routes

9. Who developed the t-distribution, initially published under a pseudonym, to address small sample sizes in industrial quality control?

A) Ronald Fisher

B) Jerzy Neyman

C) William Sealy Gosset

D) Egon Pearson

10. The principle of 'least squares,' a fundamental method for estimating unknown quantities, was first published by which mathematician in 1805?

A) Pierre-Simon Laplace

B) Adrien-Marie Legendre

C) Carl Friedrich Gauss

D) Leonhard Euler

11. What statistical concept, crucial for hypothesis testing, was jointly developed by Jerzy Neyman and Egon Pearson in the 1930s?

A) Bayesian Inference

B) The p-value

C) The likelihood ratio test

D) Regression Analysis

12. The first statistical society, the Statistical Society of London (now the Royal Statistical Society), was founded in which year?

A) 1786

B) 1834

C) 1901

D) 1888

13. Which early statistician and philosopher is known for his work 'Natural and Political Observations Made Upon the Bills of Mortality,' considered one of the earliest examples of quantitative social analysis?

A) John Locke

B) Thomas Hobbes

C) William Petty

D) Francis Bacon

14. The concept of the 'sampling distribution' and the 'Central Limit Theorem' were significantly advanced by which mathematician in the early 20th century?

A) Ronald Fisher

B) Andrey Markov

C) Henri Poincaré

D) G. Udny Yule

15. What significant historical event spurred the development of statistical quality control methods, notably by Walter Shewhart at Bell Telephone Laboratories?

A) World War I

B) The Great Depression

C) World War II

D) The Cold War