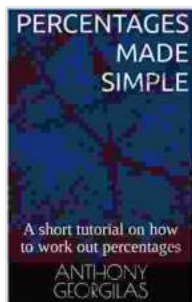


Master Percentages: A Comprehensive Guide to Understanding and Calculating Percentages

Percentages are an essential mathematical concept used in various fields, from finance and economics to science and engineering. Understanding percentages allows us to express relationships between values and make informed decisions. This tutorial provides a comprehensive overview of percentages, covering concepts, formulas, and practical applications, empowering you with the confidence to tackle any percentage-related challenge.

A percentage represents a portion of a whole expressed as a fraction of 100. It is denoted by the symbol %, and its value can range from 0% (no part of the whole) to 100% (the entire whole). For example, 50% means "half of a whole" or "50 parts out of 100 parts."

- **Decimal:** To convert a percentage to a decimal, divide the percentage by 100. For example, $25\% = 25/100 = 0.25$
- **Fraction:** To convert a percentage to a fraction, divide the number of parts by the total number of parts. For example, $75\% = 75/100 = 3/4$



Percentages Made Simple: A short tutorial on how to work out percentages by Stephen M. Stigler

★★★★☆ 4.2 out of 5

Language : English
File size : 2081 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled

Word Wise : Enabled
Print length : 33 pages
X-Ray for textbooks : Enabled



• **Finding a Percentage:** If you know the whole (W) and a part (P), you can find the percentage (%) using the formula: $\% = (P/W) * 100$ • **Finding a Part:** If you know the whole (W) and the percentage (%), you can find the part (P) using the formula: $P = (W * \%)/100$ • **Finding the Whole:** If you know the percentage (%) and a part (P), you can find the whole (W) using the formula: $W = (P/\%) * 100$

Percentages have numerous applications in our daily lives, including:

• **Finance:** Calculating interest rates, loan amounts, and profit margins • **Science:** Expressing concentrations, purity levels, and measurement errors • **Education:** Grading assignments, calculating GPAs, and measuring progress • **Business:** Analyzing sales performance, customer satisfaction, and return on investment • **Personal Finances:** Managing budgets, estimating expenses, and planning investments

Percentage increase or decrease refers to the change in a value compared to its original value, expressed as a percentage.

• **Percentage Increase:** If a value increases from P1 to P2, the percentage increase is calculated as: $\% \text{ Increase} = ((P2 - P1)/P1) * 100$ • **Percentage Decrease:** If a value decreases from P1 to P2, the percentage decrease is calculated as: $\% \text{ Decrease} = ((P1 - P2)/P1) * 100$

To solve percentage problems, follow these steps:

1. Understand the problem and identify the given information.
2. Choose the appropriate formula based on what you need to find (percentage, part, or whole).
3. Plug the given values into the formula and calculate the result.
4. Check your answer and ensure it makes sense in the context of the problem.

• To find the discount on a product that is 20% off, multiply the original price by 0.8 (100% - 20%). • To calculate the sales tax on a Free Download of \$100 with a 6% sales tax, multiply \$100 by 0.06 (6/100). • To compare the performance of two students who scored 80% and 90% on a test, subtract 80% from 90% to find a 10% difference. • To estimate the population of a city that is growing at a rate of 2% per year, multiply the current population by 1.02 (100% + 2%).

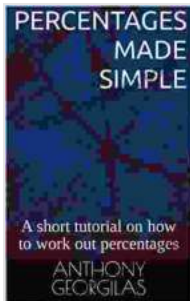
Mastering percentages empowers you with the ability to understand numerical relationships, make informed decisions, and solve real-world problems. This comprehensive tutorial provides a solid foundation in percentage concepts, formulas, and applications. By practicing and applying the principles outlined here, you can become proficient in working with percentages and unlock their true power in various aspects of your life.

Percentages Made Simple: A short tutorial on how to work out percentages by Stephen M. Stigler

★★★★☆ 4.2 out of 5

Language : English

File size : 2081 KB



Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Word Wise : Enabled
Print length : 33 pages
X-Ray for textbooks : Enabled

FREE

DOWNLOAD E-BOOK



Uncover the Secrets of Cinematic Storytelling with "Knew The Poetic Screenplay Sanders"

Embark on a Transformative Journey into the Art of Screenwriting
Immerse yourself in the captivating world of screenwriting with "Knew The Poetic Screenplay Sanders," a...



Abdus Salam: The First Muslim Nobel Scientist

In the annals of scientific history, few names shine as brightly as that of Abdus Salam. Born in Jhang, Pakistan in 1926,...