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Works and authors; 3.2. China's encounter with Western mathematics; 4. Ancient Egypt; 5. Mesopotamia; 6. The Maya; 6.1. The Dresden Codex; Questions and problems; Chapter 3. Mathematical Cultures II; 1. Greek and Roman mathematics; 1.1. Sources 1.2. General features of Greek mathematics 1.3. Works and authors; 2. Japan; 2.1. Chinese influence and calculating devices; 2.2. Japanese mathematicians and their works; 3. The Muslims; 3.1. Islamic science in general; 3.2. Some Muslim mathematicians and their works; 4. Europe; 4.1. Monasteries, schools, and universities; 4.2. The high Middle Ages; 4.3. Authors and works; 5. North America; 5.1. The United States and Canada before 1867; 5.2. The Canadian Federation and post Civil War United States; 5.3. Mexico; 6. Australia and New Zealand; 6.1. Colonial mathematics; 7. The modern era 7.1. Educational institutions 7.2. Mathematical societies; 7.3. Journals; Questions and problems; Chapter 4. Women Mathematicians; 1. Individual achievements and obstacles to achievement; 1.1. Obstacles to mathematical careers for women; 2. Ancient women mathematicians; 3. Modern European women; 3.1. Continental mathematicians; 3.2. Nineteenth-century British women; 3.3. Four modern pioneers; 4. American women; 5. The situation today; Questions and problems; Part 2. Numbers; Chapter 5. Counting; 1. Number words; 2. Bases for counting; 2.1. Decimal systems; 2.2. Nondecimal systems 3. Counting around the world 3.1. Egypt; 3.2. Mesopotamia; 3.3. India; 3.4. China; 3.5. Greece and Rome; 3.6. The Maya; 4. What was counted?; 4.1. Calendars; 4.2. Weeks; Questions and problems; Chapter 6. Calculation; 1. Egypt; 1.1. Multiplication and division; 1.2. "Parts"; 1.3. Practical problems; 2. China; 2.1. Fractions and roots; 2.2. The Jiu Zhang Suanshu; 3. India; 4. Mesopotamia; 5. The ancient Greeks; 6. The Islamic world; 7. Europe; 8. The value of calculation; 9. Mechanical methods of computation; 9.1. Software: prosthaphaeresis and logarithms 9.2. Hardware: slide rules and calculating machines

Sommario/riassunto

This new edition brings the fascinating and intriguing history of mathematics to life The Second Edition of this internationally acclaimed text has been thoroughly revised, updated, and reorganized to give readers a fresh perspective on the evolution of mathematics. Written by one of the world's leading experts on the history of mathematics, the book details the key historical developments in the field, providing an understanding and appreciation of how mathematics influences today's science, art, music, literature, and society. In the first edition, each chapter was devoted to a si