Reading and summary

The History of Computers

Let's explore the history of computers as we know them today. The very first calculating device was actually the ten fingers of a person's hands. This is why we still count in tens and multiples of tens.

Next, the abacus was invented. People continued to use some form of the abacus well into the 16th century, and it is still used in some parts of the world because it can be understood without needing to read.

During the 17th and 18th centuries, many people looked for easier ways to calculate. J. Napier, a Scotsman, invented a mechanical method for multiplying and dividing, which is similar to how the modern slide rule works. Henry Briggs took Napier's ideas and created logarithm tables that mathematicians still use today.

Calculus, another important area of mathematics, was independently developed by both Sir Isaac Newton, an Englishman, and Gottfried Wilhelm Leibniz, a German mathematician. The first real calculating machine appeared in 1820 as a result of several people's experiments.

In 1830, Charles Babbage, a talented English mathematician, proposed building a general-purpose problem-solving machine called "the analytical engine." This machine, which Babbage presented at the Paris Exhibition in 1855, aimed to completely eliminate human involvement, except for providing the necessary information about the problem to be solved. Although he never finished this project, many of his ideas laid the groundwork for today's computers.

By the early 20th century, electromechanical machines had been developed for business data processing. Dr. Herman Hollerith, a young statistician from the US Census Bureau, successfully tabulated the 1890 census. Hollerith created a system for coding data by punching holes in cards. He built one machine to punch the holes and others to calculate the collected data. Later, he left the Census Bureau and started his own tabulating machine company, which eventually became part of the IBM Corporation through a series of mergers.

Until the mid-20th century, machines designed to handle punched card data were widely used for business data processing. These early electromechanical data processors were known as unit record machines because each punched card held a unit of data.

In the mid-1940s, electronic computers were developed to perform calculations for military and scientific purposes. By the end of the 1960s, commercial models of these computers were commonly used for both scientific computation and business data processing. Initially, these computers took input data from punched cards. By the late 1970s, punched cards were nearly entirely replaced by keyboard terminals. Since then, advancements in technology have led to the widespread use of computers in our society, and the past serves as a prologue that gives us a glimpse into the future.

LIVEWORKSHEETS

? Choose the right answer

1. What was humanity's first calculating device?

a. The abacus

b. Human fingers

c. Napier's mechanical method

d. Logarithm tables

2. Who proposed building a general-purpose problem-solving machine called "the analytical engine"?

a. Dr. Herman Hollerith

b. Sir Isaac Newton

c. Charles Babbage

d. J. Napier

3. Which innovation did Dr. Herman Hollerith develop for the 1890 census?

a. Electronic computers

b. The analytical engine

c. Keyboard terminals

d. A system for coding data using punched cards

4. By what time period were electronic computers commonly used for both scientific computation and business data processing?

a. Mid-1940s

b. Late 1970s

c. End of 1960s

d. Early 20th century

5. What was significant about the abacus as a calculating tool?

a. It was only used in the 16th century

b. It required advanced mathematical knowledge

c. It could be understood without knowing how to read

d. It was invented by Charles Babbage

LIVEWORKSHEETS

Fill in the blank with the correct words

1. The first "computers" were actually people using their _____ to count.
2. The _____ was an ancient tool used for calculations and is still used today in some places.
3. By the late 1970s, _____ had mostly replaced punched cards as the main way to give computers information.
4. Many of Babbage's ideas laid the _____ for today's computers.
5. Many of Babbage's ideas laid the _____ for today's computers.

⇆ Match the words with their definitions

1. Explore	a) To examine or investigate something carefully in order to learn more about it.
2. Devide	b) The reason for which something is done or created; the goal or intended result.
3. Develop	c) To separate into parts or groups; to split something into smaller sections.
4. Solve	d) To find an answer or explanation for a problem or question.
5. Necessary	e) To increase a number by a specified factor; to find the product of two numbers.
6. Purpose	f) To grow, cause to grow, or improve over time; to create or bring something into existence.
7. Multiply	g) Something that is required or essential; needed in order for something to happen or be true.

LIVEWORKSHEETS