

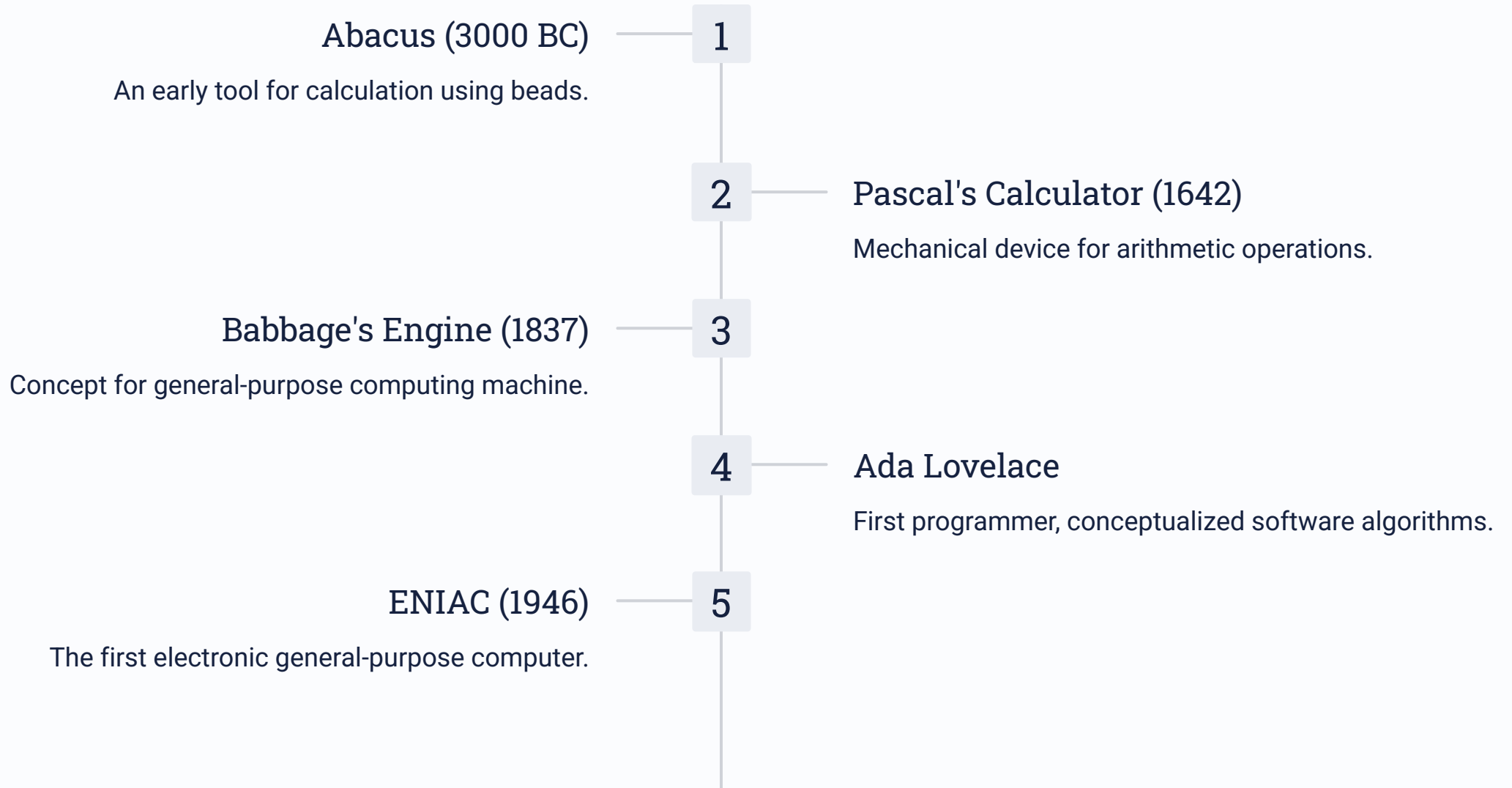


Welcome to the World of Computers

Computers transform our world from simple calculators to AI systems. This presentation introduces computer basics, history, and how they function today.

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A Brief History of Computing



Hardware: The Parts of a Computer

CPU

The computer's brain processing instructions.

- Intel Core i9-14900K (2024 model)
- Apple M3 Max ARM CPU

Memory & Storage

RAM is short-term memory; SSD/HDD store data.

- DDR5 RAM up to 8400 MT/s
- Solid State Drives (SSD)
- Hard Disk Drives (HDD)

Input/Output Devices

- Keyboard & Mouse
- Monitor & Printer

Software: Telling the Hardware What to Do

Operating Systems

- Windows 11 – 72% market share
- macOS – 15% market share
- Linux – popular for servers

Application Software

- Microsoft Office – productivity suite
- Adobe Photoshop – image editing
- Google Chrome – web browsing

How Computers Work: The Basics



Binary Code

Data is represented as 0s and 1s.



CPU Processing

Fetches, decodes, and executes instructions.



Memory

RAM stores data temporarily during tasks.



Input/Output

Receives and sends data through devices.



Moore's Law

Transistor count doubles approximately every two years.

Types of Computers

Desktops & Laptops

General-purpose and portable computing.

Smartphones

Over 6.92 billion users globally (2024).

Servers & Supercomputers

- Cloud: AWS, Azure, Google Cloud
- Frontier: First exascale supercomputer

Uses of Computers in Daily Life



Communication

Email, social media, video calls.



Education

Online courses and digital textbooks.



Entertainment

Gaming, streaming, and music.



Business

Data analysis and automation.



Healthcare

Medical imaging and patient records.



The Future of Computing

Artificial Intelligence &
Machine Learning

Quantum Computing

Internet of Things (IoT)

Virtual Reality (VR) &
Augmented Reality
(AR)

The future holds endless possibilities to enhance how we compute and interact.