

# Charles Babbage

Occupation: University teacher,  
Inventor, Mathematician, Computer  
Science, Economist, Writer, Engineer,  
Philosopher

Birth date: 26 December 1791

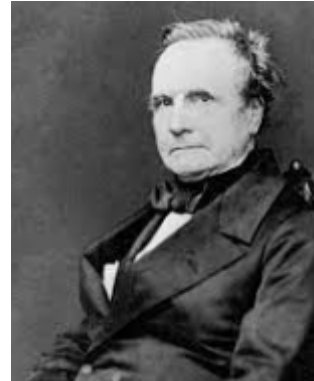
Death date: 18 October 1871

Place of birth: London

Place of death: Marylebone

Alma mater: Peterhouse Cambridge,  
Trinity College

Awards: Gold Medal of the Royal  
Astronomical Society



## Quotes:

1. Errors using inadequate data are much less than those using no data at all
2. Perhaps it would be better for science, that all criticism should be avowed
3. In mathematics we have long since drawn the rein, and given over a hopeless race.

## Known for:

He conceived the first automatic digital computer.

# Ada Lovelace

Occupation: Software Developer

Birth date: 10 December 1815

Death date: 27 November 1852

Place of birth: London

Place of death: Marylebone

Alma mater: No formal schooling

Awards: PRACE Ada Lovelace Award

Known for:

The first computer programmer



# George Boole

Occupation: Mathematician

Birth date: 2 November 1815

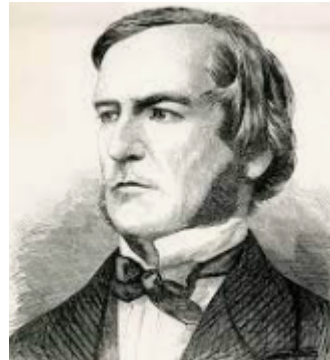
Death date: 8 December 1864

Place of birth: Lincoln

Place of death: Cork, Ireland

Alma mater: Lincoln University College  
Cork

Awards: Royal Medal



## Quotes:

1. Probability is expectation founded upon partial knowledge
2. It is not of the essence of mathematics to be conversant with the ideas of number and quantity
3. Of the many forms of false culture, a premature converse with abstractions is perhaps the most likely to prove fatal to the growth of a masculine vigour of intellect

## Known for:

Differential equations and Algebraic Logic

# Augustus De Morgan

Occupation: Lawyer

Birth date: 27 June 1806

Death date: 18 March 1871

Place of birth: India

Place of death: London

Alma mater: University of Cambridge

Awards: The De Morgan Medal



Known for:

He worked on double algebra and trigonometry and his advances in mathematics

Law proof:

$$\begin{array}{l} \neg(P \wedge Q) \rightarrow (\neg P \vee \neg Q), \\ (\neg P \vee \neg Q) \rightarrow \neg(P \wedge Q), \\ \neg(P \vee Q) \rightarrow (\neg P \wedge \neg Q), \\ (\neg P \wedge \neg Q) \rightarrow \neg(P \vee Q), \end{array}$$

# Alan Turing

Occupation: Computer Scientist,  
Logician

Birth date: 23 June 1912

Death date: 7 June 1954

Place of birth: Maida Vale, London

Place of death: Wilmslow

Alma mater: Princeton University,  
University of Cambridge, King's College

Awards: Smith's Prize



## Quotes:

1. "Sometimes it is the people no one can imagine anything of who do the things no one can imagine."
2. "We can only see a short distance ahead, but we can see plenty there that needs to be done."
3. "Those who can imagine anything, can create the impossible."

## Known for:

He created the Universal Turing Machine, which was the basis for the first computer, he also developed a test for artificial intelligence in 1950.

# Claude Shannon

Occupation: Electronic Engineer,  
Geneticist

Birth date: 30 April 1916

Death date: 24 February 2001

Place of birth: Michigan, US

Place of death: Massachusetts, US

Alma mater: University of Michigan

Awards: Claude Shannon Award of the  
IEEE Information Theory Society



## Quotes:

1. I visualize a time when we will be to robots what dogs are to humans, and I'm rooting for the machines.
2. Information is the resolution of uncertainty.
3. Information: the negative reciprocal value of probability.

## Known for:

He conceived and laid the foundations for information theory. Laid the groundwork for the electronic communications networks that now lace the earth.

# John Von Neumann

Occupation: Chemist, Engineer,  
Economist, Physicist

Birth date: 28 December 1903

Death date: 8 February 1957

Place of birth: Budapest, Hungary

Place of death: Walter Reed Army  
Medical Centre, Bethesda

Alma mater: ETH Zurich, Humboldt  
University of Berlin, ELTE Faculty of  
Science

Awards: Medal of Freedom, Enrico  
Fermi Award. Medal for Merit



## Quotes:

1. "If people do not believe that mathematics is simple, it is only because they do not realize how complicated life is."
2. "Young man, in mathematics you don't understand things. You just get used to them."
3. "There's no sense in being precise when you don't even know what you're talking about"

## Known for:

He created the Von Neumann Architecture and his work on the CPU is what he was known for.

# Grace Hopper

Occupation: Software Developer, Naval Officer, Physicist

Birth date: 9 December 1906

Death date: 1 January 1992

Place of birth: New York, US

Place of death: Virginia, US

Alma mater: Yale University

Awards: Presidential Medal of Freedom, IEEE Emanuel R. Piore Award, National Medal of Technology and Innovation



## Quotes:

1. *"A ship in port is safe, but that's not what ships are built for."*
2. *"I've always been more interested in the future than in the past."*
3. *"One accurate measurement is worth a thousand expert opinions."*

## Known for:

She was one of the first computer programmers to work on the Harvard Mark I. She helped develop COBOL - one of the first high-level programming languages.



# John Backus

Occupation: Soldier, Computer Scientist

Birth date: 3 December 1924

Death date: 17 March 2007

Place of birth: Delaware, US

Place of death: Oregon, US

Alma mater: Columbia University

Awards: National Medal of Science, Turing award, Charles Stark Draper Prize



## Quotes:

1. They don't like thinking in medical school. They memorize - that's all they want you to do. You must not think.
2. You need the willingness to fail all the time.
3. Much of my work has come from being lazy.

## Known for:

The invention of FORTAN and for the BNF notation for describing the syntax of a programming language.

# Edsger Dijkstra

Occupation: Engineer, Computer Scientist

Birth date: 11 May 1930

Death date: 6 August 2002

Place of birth: Rotterdam, Netherlands

Place of death: Nuenen, Netherlands

Alma mater: Leiden University,  
University of Amsterdam

Awards: ACM PODC Influential Paper Award



## Quotes:

1. "Simplicity is a great virtue but it requires hard work to achieve it and education to appreciate it. And to make matters worse: complexity sells better."
2. "The question of whether a computer can think is no more interesting than the question of whether a submarine can swim."
3. "Simplicity is prerequisite for reliability."

## Known for:

His shortest path algorithm, a methods of finding the most direct route on a graph or map. He worked on Algol 60, a programming language that represented on of the first compiler programs that translates human instructions

# Tim Berners-Lee

Occupation: Software Developer, Web developer

Birth date: 8 June 1955

Death date: N/A

Place of birth: London

Place of death: N/A

Alma mater: Queen's College

Awards: Turing Award, President's Medal, Queen Elizabeth Prize for Engineering, IEEE Computer Society Awards, Sir Frank Whittle Medal, IET Moutbatten Medal, Japan Prize, Royal Medal



## Quotes:

1. "The Web as I envisaged it, we have not seen it yet. The future is still so much bigger than the past"
2. "We need diversity of thought in the world to face the new challenges"
3. "Data is a precious thing and will last longer than the systems themselves"

## Known for:

He invented the World Wide Web.

