ADA LOVELACE
MATHEMATICIAN AND FIRST PROGRAMMER

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Manufactured in the United States of America

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WHO WAS ADA LOVELACE?

Ada King, Countess of Lovelace, was an English mathematician. She wrote a **PROGRAM** that could have been carried out by an early form of computer. Therefore, she is considered by many to be the first computer programmer.

Computers are machines that work with information. This information can be in the form of

Ada King, Countess of Lovelace, wrote programs for an early form of computer. Her computer programs were the first ones ever to be published.

numbers, words, pictures, movies, or sounds. Computer information is also called data. Computers can work with huge amounts of data and produce results very quickly. They also store and display data.

An English inventor and mathematician named Charles Babbage dreamed up the first computer in the 1830s. Babbage's machine did not run on electricity like today's computers because scientists did not yet know how electricity

Charles Babbage developed plans for the first computer in the mid-1830s. He designed it to be able to perform any arithmetic operation.

Vocabulary

A **PROGRAM** is a set of step-by-step instructions that tell a computer to do something with data.

Quick Fact

In 1855, a Swedish company made a calculator based on Babbage's machine, but the modern electronic computer was not developed until much later.
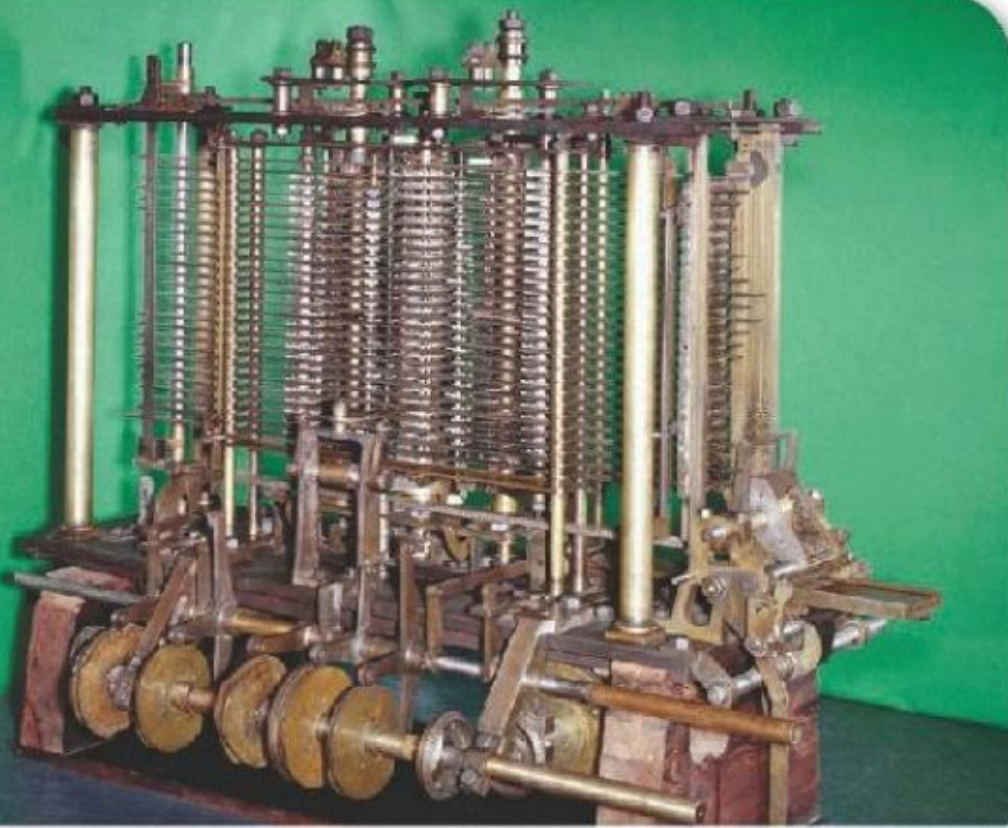
Only a small part of Babbage's computer was built during his lifetime. The machine was designed to follow instructions that people entered using punched cards.

worked. Instead, Babbage's machine called for more than fifty thousand moving parts. It was so complicated that the machine was never constructed during Babbage's lifetime. But it is still considered to be the first computer. Ada Lovelace created a set of commands that would have worked on Babbage's machine had it ever been built.

A YOUNG MATHEMATICIAN

Ada was born on December 10, 1815, in what is now London, England. Her birth name was Augusta Ada Byron. She was the daughter of the famous poet Lord Byron and Annabella Milbanke Byron. Ada's first name, Augusta, was the name of Lord Byron's half-sister.

Lord Byron's first collection of poetry was made public in 1807, when he was nineteen years old. The long poem that would make him famous was published five years later, in 1812. Almost overnight, the twenty-four-year-old Lord Byron found himself in the spotlight. Byron
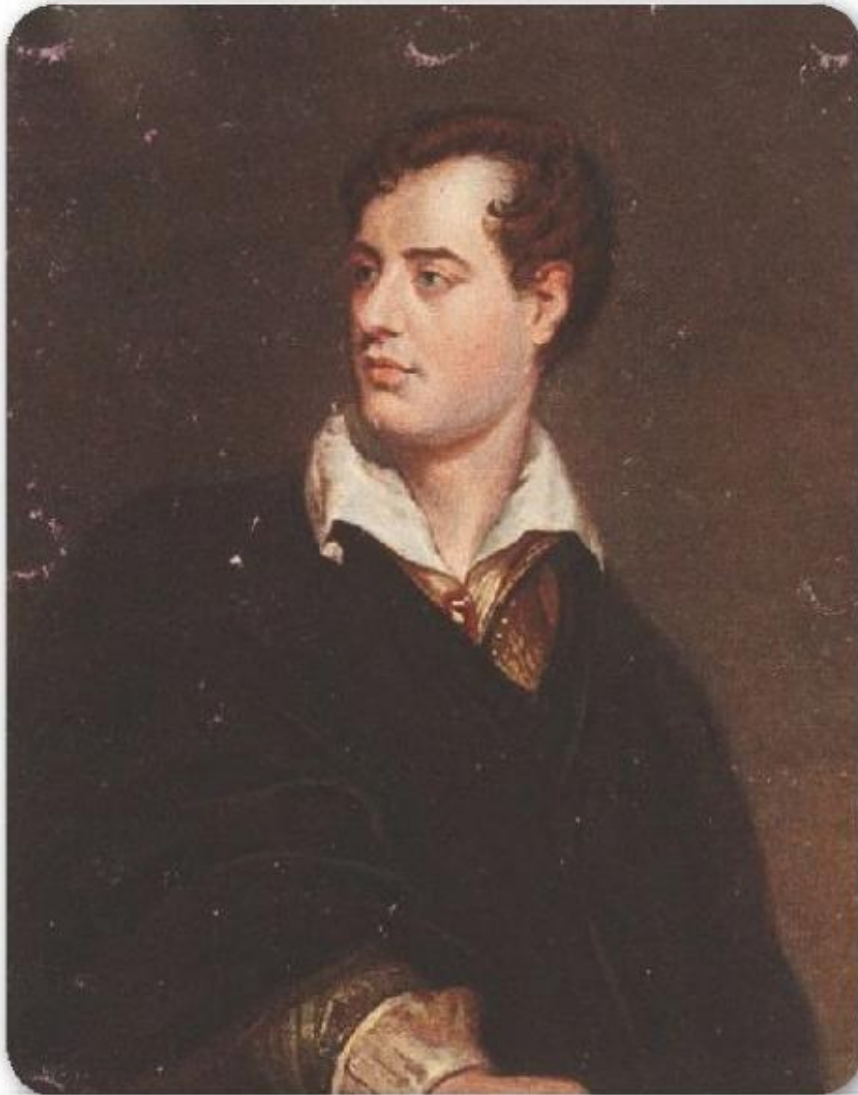
Ada's parents, Lord Byron (*left*) and Anne Isabella (Annabella) Milbanke (*right*), were married in January 1815.

did not handle his fame well. He often acted without any thought to how his deeds might affect other people.

In January 1815, Byron married Anne Isabella (Annabella) Milbanke. The marriage did not last long. Annabella took Ada and left Byron when Ada was just over a month old.

Ada was taught at home by private tutors. She suffered from long periods of poor health. One of the worst illnesses paralyzed her and left her bedridden from early 1829 to the middle of 1832. Some historians have suggested that the illness was measles or **POLIO**. Others have said the sickness was all in Ada's mind. No one really knows exactly what was wrong with her.

Vocabulary

POLIO is a disease that affects nerve cells in the spinal cord. It can paralyze someone and make muscle tissue break down. It is caused by a virus and can be spread from one person to another.

Ada's formal education began when she was four years old. A typical day included instruction in arithmetic, music, and French.

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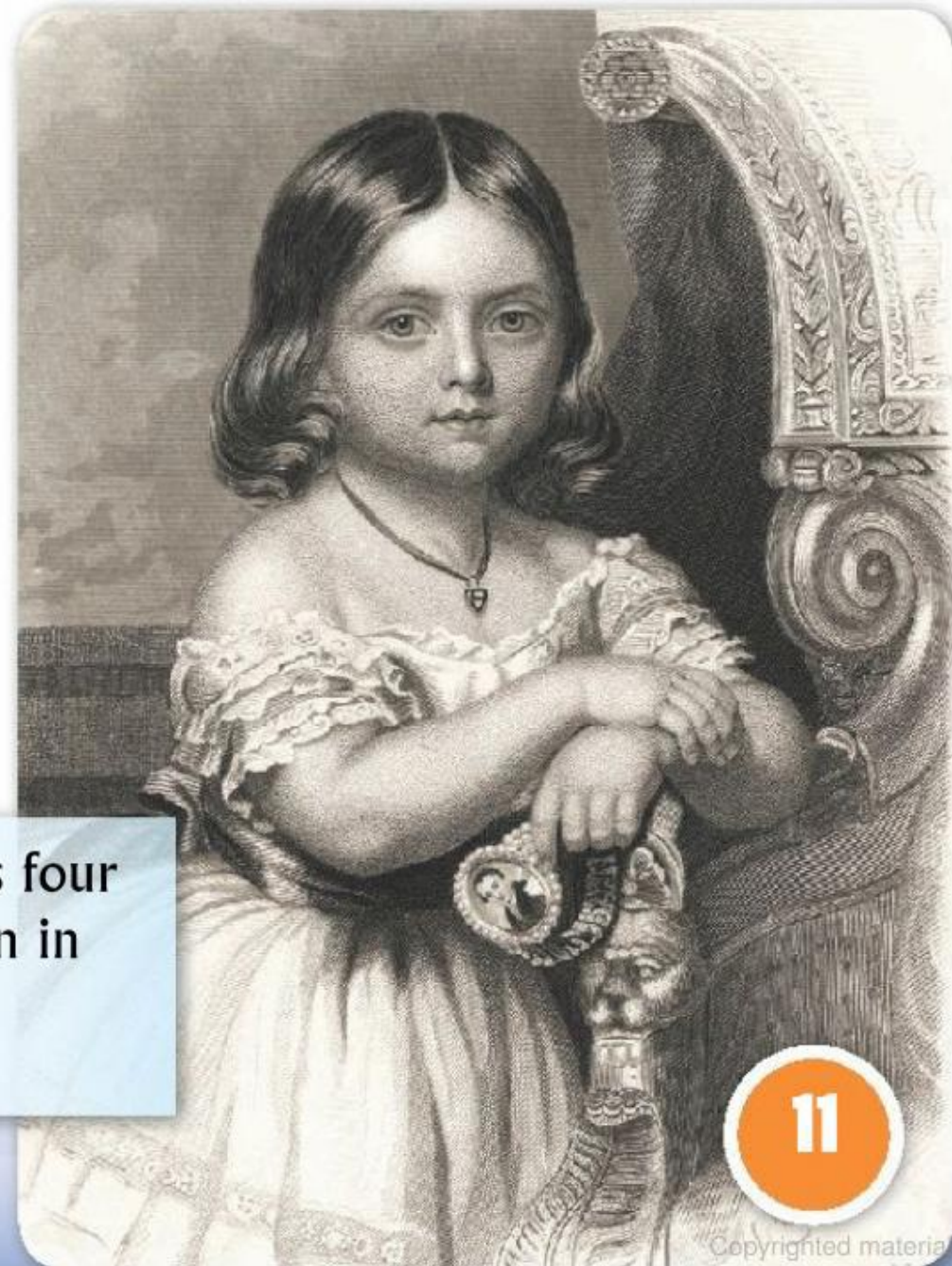
STUDYING MACHINES

As a girl, Ada was fascinated with machines. She was also interested in flying. She studied the wings of birds to find out how they worked. Then she made detailed drawings and built her own pair of wings. She loved riding horses and dreamed of making a steam-powered, horse-shaped flying machine that she could

Ada studied the wings of birds and how they worked so she could make a pair of wings for herself.