

# Introduction To Programming

## Basic algorithmic thinking

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# History

# History

The concept of algorithm has existed since antiquity. Arithmetic algorithms, such as a **division algorithm**, was used by ancient Babylonian mathematicians c. 2500 BC and Egyptian mathematicians c. 1550 BC.

Greek mathematicians later used algorithms in the **sieve of Eratosthenes** for finding prime numbers, and the **Euclidean algorithm** for finding the greatest common divisor of two numbers.

# History

The word algorithm itself is derived from the 9th-century Persian mathematician Muhammad ibn Ahmad al-Khwarizmi, Latinized **Algoritmi**.

# History

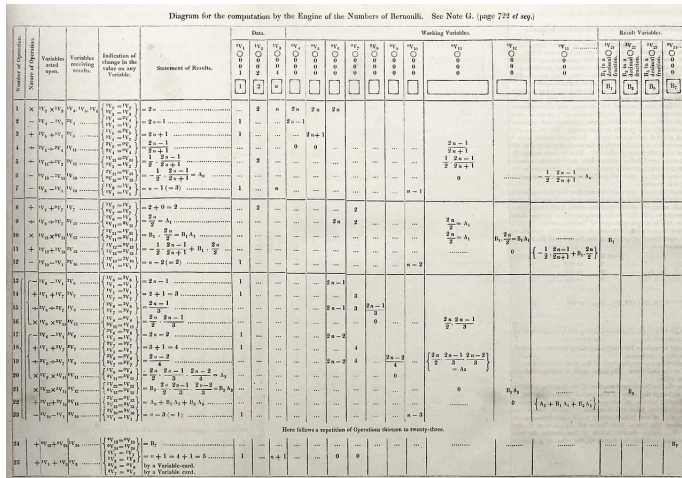
- 19th century
- Mathematician and writer
- First published algorithm



Augusta Ada King, Countess  
of Lovelace

## History

Ada Lovelace's diagram from "note G", the first published computer algorithm.



# Algorithms

## Definition

A finite sequence of well-defined (unambiguous) instructions is called an **algorithm**.