

1. Vannevar Bush
2. Theory
3. Computer Chronology
 1. Long History
 2. Early electronic computing
 - chaining complex operations**
 1. John Atanasoff and Clifford Berry at Iowa State University: 1936 and on.
 2. Colossus (1944–Bletchley Park) –simulating particular Nazi code machines
 3. Harvard Mark 1 (1945)–mechanical switches.