Let us take a look at the history of the computers that we know today. A chip is a square or rectangular piece of silicon, usually from 1/10 to 1/4 inch, upon which several layers of an integrated circuit are etched or imprinted, after which the circuit is encapsulated in plastic, ceramic or metal. Unlike second—generation computers, these are controlled by tiny integrated circuits and are consequently smaller and more dependable. Fourth—generation computers have now arrived, and the integrated circuits that are being developed have been greatly reduced in size. Calculus, another branch of mathematics, was independently invented by both Sir Isaac Newton, an Englishman, and Leibnitz, a German mathematician. They named their new invention ENIAC.