

Calculators - A Boon Or A Bane

A calculator is a device, usually hand-held, for calculating mathematical expressions. In the past, calculations were done in the head, on paper or by a semi-manual machine. But, this process of semi-manual calculation was time-consuming and prone to errors. Working out large sums in the head was not for everyone and calculations done on paper also were not totally error-free. Then came calculators designed to simplify all those complicated mathematical calculations. In the beginning, these electronics devices were very expensive. This was because the mechanical and electrical parts of the calculator were expensive to produce. However, as the prices of these parts fell and production techniques became better, calculators, too, became less costly and in fact, were very soon easily affordable to the average person.

In the past, calculators were as big as computers today but, soon, pocket-sized devices were available. Calculators can come in hardware or software versions and they can be mechanical or electronic. They are built into computers, mobile phones, pagers and even wrist-watches. Modern calculators are normally electrically powered and may range from small, wallet-sized models to strong adding-machine like models. These powerful calculators may also have printers in-built in them.

A basic calculator has a power point, a display unit, electronic circuit and a keypad. The keypad consists of ten digits from 0-9, equals signs, the decimal point, a cancel or clear button, on and off buttons and offers the basic mathematical calculations of addition, subtraction, multiplication and addition besides having square root and percentage calculations.

There are now many advanced variations of calculators available, each performing a specific function. For example, the scientific calculator is designed for advanced mathematics like trigonometry and statistics. The financial calculator will help in accounting and real-estate deals. The mortgage ones will show you what exactly you have to pay on your house. Apart from these there are loan, lease, time, love, area, temperature and the most advanced of them all, graphing calculators. These are all basically online calculators but they do have certain anomalies, like, if the numbers get too big or too small, some errors in calculations can occur.

The easy availability of calculators has made people dependent on them to a certain extent and most of them do all their calculations on calculators. This has its own followers as well as detractors. Some believe that using calculators hamper the basic mathematical skills of people, especially students, by making them poor in instant calculations.

In many countries, students are allowed to use calculators in their school-work because it is felt that problem-solving and estimation techniques can be taught more easily through calculators. Others worry that students may use the calculator in the wrong way unintentionally and, yet, believe the answer because that was the result shown. This type of error can take place outside school rooms also. Anyone using the calculator incorrectly will believe the wrong answer to be the right one. This might happen in shopping malls or even during business transactions.

In schools, teachers try to tackle this by asking the students to first make an approximation of the answer manually and then compare it to the calculated result. But, overall, this does hamper the child's learning process because he or she may not understand the logic behind the answer. In such a case, calculators become more of a hindrance than a help.

Of course, when one is involved in lengthy financial calculations, these devices come in very useful. Even if one is on a holiday abroad calculators are handy for those quick conversions of currency and saves you valuable time trying to figure out the conversion rates.

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