Importance of calculators essay sample

Science, Mathematics



In todays time, calculators in schools are just as widely used as computers are. Since its invention nearly forty years ago, the electronic calculator has evolved from a machine that could only perform simple four-function operations (addition, subtraction, multiplication, division) into one that can now also execute highly technical algebraic symbolic manipulations instantly and accurately. Each new generation of calculators builds on the previous one, with heightened speed and more advanced capabilities. At the same time, the cost of a basic calculator has dropped so low that virtually that every household in the U. S. can easily afford one.

Calculators are a big help when doing mathematical equations correctly. They are also a useful tool in learning different ways to do mathematics. The use of them plays a big part in excelling in math. With extensive availability, a full range of sizes and styles, and a price range for just about any budget, there really shouldnt be any excuse for not owning a one. There also shouldnt be any restrictions, as far as Im concerned, for the use of calculators in classrooms. I agree with this rule only when the level of math is above learning the four basic operations. Its not about the tedious math involved thats important, its about learning the fundamentals and concepts of how to problem solve. The advantage of this technology is so helpful for students. However, the use of calculators does have a bad reputation for some people who didnt have the technology we readily have in school while they were growing up.

There are some current myths that block how beneficial calculators really are. They make students more efficient, in my opinion. We live in an evolving world of technology. Todays technological generation has made a complete

https://assignbuster.com/importance-of-calculators-essay-sample/

turn around from past generations. Just about everything we do nowadays requires the use of technology in some way or another. For example, doing something so simple as going to WAWA to order a sandwich, requires you to have to use a touch screen computer to place your order! We are wrapped up in a world of technology. Calculators are useful for a means of learning, but because of false information, some educators and others still believe they are harmful for students. It is very important that these myths be dealt with so that the truth will be known.

The first myth is that calculators are used because the students are too lazy to do the computations manually, and so their calculators do all the work for them. This is a completely false statement. Because of their speed and accuracy, calculators lend themselves to complicated problems that can easily be computed once the question is fully understood. They increase the students motivation by being able to solve the problem more simply. The most important part of a math problem is to read into the question and understand what the question is asking. However, this may not be as simple as it sounds. Being able to set up the problem and then determining whether or not the answer makes sense comes next. Its more or less, like a puzzle where you have to plug numbers in. Most math has letters instead of numbers. The most difficult part of doing these advanced problems is figuring out which number to replace the letter with to solve the equation.

After that is done, the rest of the problem is just using an operation to complete the problem. These operations can take up a lot of time. We learn how to do operations in our elementary years growing up. When you get into

college level math classes, its not about seeing if a student can successfully add, subtract, multiply or divide. Its the application of all of those skills that have been learned and mastered in our previous years. Calculators aid the student in the calculation part of the math problem and allow more time to understand, instead of doing tedious work that is sometimes involved in problems. The calculators expand the students ability to solve problems by providing multiple solution techniques.

The second myth is that people will become so dependent on calculators that if they had to live without one, they would be helpless. In my opinion, this statement is both true and false. Im not saying that a person should be able to use one in elementary school. That is their time to learn the operations, which is extremely important. However, in a high school or college level math class, that statement is somewhat true. Its not that I would be lost without one. Its just that it would take me a whole lot more time to calculate a problem successfully. Elementary math classes provide us with the foundations of using math throughout our lives. I believe that those years are our most crucial years in learning the subject. Everything you learn during that period of time sticks with you for life and comes in very handy when needed. Every adult should have the four main operations of math mastered in their heads.

The truth is that calculators are more accurate and efficient than humans, so when you want to figure out an answer to a problem without spending hours on it, calculators can be a huge help. It is very easy to make a mistake on paper. After all, we are human. Calculators are programmed machines. They

do exactly what we order them to do and are programmed to never make mistakes. The only mistake youll get out of a calculator is your own, for example, if you mistakenly push the wrong button. Along with being accurate, they have other positive qualities.

They are inexpensive and portable enough so that they can be brought along without adding any heavy bulk. They arent able to replace the human mind in knowing how to read or understand the situation of a problem, but they can accurately do the rest of the work. Calculators are only as effective as the information entered in to them. The person using them is in control of entering that information into the calculator. Like I previously stated, the most crucial part is understanding the problem and entering in the correct input. When it comes down to it, the four basic math operations, which can be tedious to say the least, are just about always whats going to be used when solving the problem.

The third myth is that since previous generations doing math turned out all right from not having the calculator technology when they were in school, the new generation doesn't need to use them. Since calculators never existed generations ago, problems had to be written out with pencil and paper. This is tedious work that takes up a lot of time. These methods of the past may now be obsolete because of the new technology that is out there and readily available. So many more students now are able to dig further into more complex areas of mathematics. Most people who have issues against technology usually have a fear of the unknown and are intimidated of success. That fear can only get you so far in life.

The efficiency of a student can be drastically changed when using even the most basic type of calculator. With the world rapidly moving towards the direction of new technology, more and more students have been familiarizing themselves with them. Calculators give them a sense of comfort and a huge advantage over others who haven't had the exposure to such technology. Such exposure will make more students open or willing to try other new types technology as well. In a sense, it prepares you for your future. Employers are going to desire employees who can solve problems efficiently, obviously when using technology when and if applicable.

Overall, the use of calculators forms a more accurate, faster, and better student. Using them allows a student to concentrate directly on the structure of the problem and what steps to take within. Calculators simply take out the small, time-consuming parts of an equation giving the student more time to work on the "heart" of the problem and to better understand it.

The use of calculators also speeds the learning process and gets rid of less significant, time consuming parts of problems that have been mastered already. It is important that students spend less time on topics since the calculator makes old techniques obsolete. Educators have finally realized that mathematical concepts in learning new things are much more important than spending endless hours doing pencil and paper work on the same basic operations since it was first learned. Students today are learning faster than students in the past. Calculators in classrooms helped us achieve this. Due to the amazing results in calculators in education, most college level math classes have them as a requirement.

They have surely given new light to students in the world of mathematics. Along with playing a large part in the emerging requirements of math instruction, they give a better attitude towards math itself, which could be intimidating for lots of us. But overall, they give a better self-concept and total understanding of it. The calculators allow the students interest in math to prolong and either explore further by taking more advanced classes or at least leave the student with a life long appreciation for math.

America has always had a rich history in adapting to new technologies in many areas. The world has undergone an immense change over the years because of advances in technology and the willingness to use them.

Calculators, like other technologies can be easily implemented into places such as the classroom as well as students' lives. Calculators are seen and used daily by the majority.

Mathematics has grown considerably in the past years as well as the tools to aid students in math, primarily with the use of calculators. Math is such a broad subject that all students should understand and learn to appreciate. Rejecting the help of a calculator is only limiting knowledge expansion of mathematics. The abundance of calculators today is material proof that myths of calculators are false because of current widespread acceptance. Blending technology with education is only to advance our well being.

Works Cited

Academic Asap. 4 Aug. 2007.

" Education. Yahoo." 4 Aug. 2007 .

Ellington, Aimee J. " School Science and Mathematics." School Science and Mathematics (2006). 4 Aug. 2007 .

Vintagecalculator. 4 Aug. 2007.