

Why should college students study mathematics?

Here are eight reasons. At least one will strike true for you.

1. Thinking mathematically helps you to analyze and solve problems in an organized logical manner. Studying mathematics helps you learn to pay attention to details and to think clearly and logically in all aspects of your life. (This is why math majors and math minors are being hired for non-math jobs more and more each year. Employers appreciate those who can think critically and solve problems!)
2. Mathematics is the language of science. It helps us understand our natural world.
3. Mathematics has tremendous historical significance and is the foundation in the development of science and technology.
4. Mathematics is good for your brain ... the mental muscle needs exercise too.
5. There can be pleasure and satisfaction in achieving a difficult goal. Acquiring new skills is very empowering, whether or not you find it fun to do.
6. Mathematics is aesthetically beautiful and fun!
7. Bob Moses, creator of "The Algebra Project", sees mathematics as a "tool of liberation" and says, "The computer, of course, is the symbol of the great technological shift that has occurred since World War II. Everybody knows that there's something going on with computers out there...Everybody is willing to accept that what is powering these now-indispensable computers is a mathematical, symbolic languages. So, while the visible manifestation of the technological shift is the computer, that hidden culture of computers is math."
8. I have never bought the argument that you should study mathematics so you can build a deck or figure your taxes. There is software that can compute that for you. Truly the only people who will really use the processes of algebra and calculus in their lives are mathematicians, scientists, and engineers. But just because most of us don't use algebra every day, doesn't mean it isn't useful. I don't think about sentence structure every day or any of the other fundamentals that I have been taught over the years, but they have still enriched my life.

A former colleague said, and I agree, this about why you should study math, "The average person uses a standard vocabulary of about 500 words. Everyday life would be extraordinarily dull and limited if we didn't know more than we use each day. I don't dance or take photographs every day, but I'm glad I know how. I don't play ball anymore, but I'm glad I learned. I don't speak Spanish but if I had learned to, I might be able to make myself understood in a situation. What we know gives us freedom to choose. Because I know algebra, I'm not afraid to read a technical article that might be interesting to me or to apply for a job that might draw upon those technical skills. We don't learn only in order to use. If utility was the only measure of education, we would all have had apprenticeships as children and joined a medieval guild for the rest of our lives."