CAREER REPORT

MATHEMATICIAN

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The origins of mathematics come from the classical Greeks and then those scholars prior to Augustus in Rome. Also the Arabs and Egyptians along side the Hebrews and Babylonians were making many advances. Amongst all of them they invented the decimal point, pi, the place holder and our current numerals. During the Renaissance in Europe mathematicians stepped up the pace but in the scientific revolution of the 1600's the field exploded with Newton and his calculus; Descartes and his analytical geometry; also, the great Da Vinci and Galileo. Through out the time to follow algebra and most other forms of math evolved. Eventually there was Einstein with his mathematic equations that solved some of the mysteries of space, time and light.

As the years have progressed and computers and calculators become easier and cheaper to make, math has been made simpler and expeditiously done. While the age old idea of writing out math step after step will always be preferable to quick computer computations with the intent that you might later need to trace how the answer derived from the problem and why. Math is a science in which you are not solving; but rather proving that something is always true under certain circumstances and, that

there is only one set of true solutions to an equation, which extraordinarily resembles basic criteria. The job of a mathematician is to discover sets of criteria that can prove or disprove a theory that has been made.

As far as preparation to be a mathematician goes there are a couple of majors that work: either Applied Mathematics –OR- Mathematics. You can get either of these degrees from most any school. Also there really is not a best school for the career although a benefic engineering school like MIT or CALTECH would be advantageous. Outside of a propitious education you really need to love math; if you don't generally love mathematics the career could be a steep and rocky decent to the end of your career. Although a lot of times maladroit mathematicians will become computer programmers, teachers, or economists.

This field is dominated by universities and their professors around the world; all competing against each other to make the next amazing discovery. Also, if you are not up for making discoveries you might find a job at the New York Stock Exchange, National Security Agency, or Wolfram Research. Also one might look for work at a brokerage house or investment bank. The job generally does not require excessive hours nor does it pay millions. Most often it is forty hours a week and after ten to fifteen years you should be receiving a salary of seventy-eight thousand six hundred dollars per annum. There are three

major organizations in this profession: American Mathematical Society, Mathematical Association of America, and Society for Industrial and Applied Mathematics.

In ten years the profession will be a less needed or wanted one. Computers will be able to take over the practical jobs of a mathematician. Also, most researchers will no longer require assistance in performing tasks again thanks to technology. Hence, the profession will eventually become a job where every person in the field works alone with a computer and not with teams of researchers. Then, in the ten years to follow the job as we know it will vanish and become obsolete. However, there will always be new and creative opportunities for mathematicians.

The career of mathematician appeals to me in view of the fact that math is like the science of numbers and shapes; for instance geometry is math but also the science of shapes and lines. Science as defined by Webster's Collegiate Dictionary is the state of knowing: knowledge as distinguished from ignorance or misunderstanding. Therefore, science does not necessarily imply geology, chemistry, or biology, etc. it implies anything that involves having a state of knowing about something. So, obviously the definition of mathematics is: the science of numbers and their operations, interrelations, combinations, generalizations, and abstractions and of space configurations

and their structure, measurement, transformations, and generalizations. Meaning that math is the science of numbers, shapes, and any thing that ties them together.

As heretofore stated, in preparation to be a mathematician one might seek an engineering school such as MIT or CALTECH. Additionally, one must absolutely love mathematics or they may be at a disadvantage with their career.

Mathematics is a tedious field with long equations and proofs all for the sake of greater understanding of space and time. Only those with a true love and passion for the field can succeed while the others will, as erstwhile was said, the career could be a steep and rocky decent for you and your career as a mathematician. Also, all careers involved with the furthering of human knowledge are some of the most amazing careers out there; and mathematician is one of them.

SOURCES

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You Are A Mathematician A Wise & Witty Introduction to the Joy of Numbers; David Wells; © 1995; John Wiley & Sons Inc.

Math & Mathematicians: the History of Math Discoveries around the World; Leonard C. Bruno; © 1999; UXL an imprint of the gale group