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UTILITY OF MATHEMATICS

M. P. Chaudhary*

International Scientific Research and Welfare Organization, New Delhi-110018, India

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ABSTRACT

T he purpose of current article is to discuss about the utility of mathematics in everyday life of general public during modern time.

What is Mathematics?

Mathematics is simply a language used by human beings regardless of geographical boundary, place, gender, religion, casts, race or culture. Also, the languages of mathematics are numbers, not literatures such as Hindi or English or Russian or German or French or Spanish or Chinese or Urdu or Arabic etc. Mathematics is both great art and important science, because it combines generality of concepts with depth of structures. Mathematics is also treated as queen of all sciences.

Utility of Mathematics

Communication, connections and representations are terms that have a very special meaning and use in mathematics. Since the very first day at the starting of the universe and existence of human beings, mathematics is a part of their lives. Knowingly or unknowingly, everybody uses mathematics, whether he / she is realized or not, whether he / she is literate or illiterate. Starting from rich to poor, everyone has to somehow use mathematics in their day to day professional and real lives. Before the discovery of mathematical rules, people use local barter system known in their areas for long time. In this system, they give their goods to others and take the goods from others on mutually reciprocal basis. Unfortunately, this system cannot useful longer, when needs of human beings increased at every moment of their lives. Over the last four centuries the successes of mathematics has provided remarkable insights into the nature of matter, living and non-living.

Ways for use of Mathematics

Reading, writing and thinking in mathematics can improve procedural knowledge, understanding of the subject and its applications, and communication skills. Every moment of life, mathematics is a part of our lives. We are using mathematics in number of ways to make comfortable of our day to day life. It is impossible to count the total number of ways of the use of mathematics. But, here we discuss about some professions, where we commonly using different aspects of mathematics.

Artist doing any kind of art, he /she is using mathematics. Whether he/she is musician, dancer, singer, actor and painter etc, able to compute and apply basic mathematics to it. Architects design any new structures such as bridge, tower or building for structural integrity and beauty; they should know how to compute loads for finding suitable materials in design. Advocates argue cases using logical lines of reasons; such skill is developed by high level mathematics courses. They also spend a lot of time researching cases of different kind. Bankers assist businesses by managing on their day to day commissions from different sources using mathematical calculations. Biologists observe nature to act in concert with it as we are very closely tied to nature; they use statistics to count animals. Taking on the mobile phone is the ways of modern communicating for most of the young people now in present time, because it is easy, comfortable, quicker way of communication, cost effective and accessible. Most of the people have mobile phone and it requires a general knowledge of mathematical skills. If you know about numbers and how they work, then with current technology you can do many things on your mobile phone such as surfing of internet, photography, gaming, watching movie, listening music, messaging and talking etc. Chemical scientists find ways to use chemical compounds to assist us which entails waste management's, making food products, analyzing finger prints, purifying water and researching superconductors etc. Computer programmers develop software to help us use computers to solve problems by creating complicated sets of instructions with the use of mathematical logic skills. Cooking requires mathematical skills as well, whatever we do in the kitchen requires mathematics, even just using gas is basic mathematical skill in action. Every ingredient has to be measured and sometimes we need to multiply or divide to get the exact amount we need. Doctors should understand the dynamic systems of the human body. They research diseases, fix proper amount of medicine and organize their workload. Engineers build buildings, dams, roads, products, structures and systems etc by

Corresponding author: M. P. Chaudhary*, International Scientific Research and Welfare Organization, New Delhi-110018, India, E-mail: mpchaudhary_2000@yahoo.com

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using frequent application of mathematical calculations. Formers compute the proper amounts of pesticides, fertilizers and water to produce crops. They must have knowledge of mixture problems. Geo-scientists use mathematical models to search mineral and to predict about earthquakes. They searching for oil, and do not have to solve complicated differential equations, but differential equations may have been involved in the creation of tools that geo-scientist use. Meteorologists forecast the weather for players, tourists, pilots, agriculturists, marine dependent and even general public etc by using mathematical tools. Nurses carry out the number of instructions given by doctors to them. By using mathematical logic, they handle several activities such as giving counted number of injections and medicine to the patients of different categories admitted in the hospital, assist in operations etc. Politicians solve several social problems by making certain decisions involving mathematical logic, statistical analysis and probability theory. Radio does indeed involved sine's and cosines, but the person adjusting the dials needs no trigonometry. Technicians repair the technical goods such as aero-planes, trains, cars, refrigerators, television, computers, mobile phones etc. They are always reading measuring devices, diagnosing system problems and referring to manuals, it is possible only with the help of mathematical representations.

The role of mathematics also becomes important when trying to maximize your productivity at work. If you can simply able to measure the total number of goods you produce per day, make its graphical representation to track your improvement. If it is difficult to quantify, calculate the duration of time it takes you to do certain tasks.

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