Mathematics, or math, is the study of numbers and how they are related to each other and to the real world. Math is as important as language. In fact, people sometimes describe math as a kind of language. Everyone uses math every day—to tell time, to play games, to cook, to build things, and to do almost any kind of work.

There are many branches of mathematics. Some of the main ones are arithmetic, algebra, geometry, trigonometry, calculus, statistics, and probability. Mathematics also may be divided into two general areas: pure and applied. Pure math is the study of math for its own sake. Applied math is the study of math for the purpose of solving real-life problems. People use *applied math to build skyscrapers, make computers, predict earthquakes, explain how the economy works, and many other things.*

People have used mathematics since ancient times. *The Egyptians could not have built the pyramids without a very good understanding of math, especially arithmetic and geometry.* The Babylonians of ancient Mesopotamia (now in Iraq) invented a complex number system and used fractions.

The ancient Greeks greatly expanded math with many new ideas. In about 300 BCE the Greek mathematician Euclid wrote an important book on geometry called *Elements*. Later, the Arabs also contributed greatly to math. In the 800s CE an Arab mathematician named al-Khwarizmi described a problem-solving system that is now known as algebra.

The ancient Greek and Arab ideas about math eventually spread to western Europe. Math progressed as European scientists used it to research other subjects. In the 1600s the astronomer Johannes Kepler used new mathematical ideas to study the skies. Other scientists in the 1600s, namely Galileo and Isaac Newton, applied math to the study of motion. In the 1800s and 1900s scholars developed many new ways to study and use math.

Mathematics and magic may seem a strange combination, but many of the most powerful magical effects performed today have a mathematical basis. Famous magicians such as Derren Brown and David Blaine use mathematics-based tricks in their shows, but mathematics is also the secret behind the technologies we use, the products we buy and the jobs we will have. Mathematics is the language we use to describe the world around us - it's the basis of all the sciences.

Long before the invention of the electronic calculator or the computer, people counted and did calculations with a device called an abacus. On this instrument, calculations are made with beads, or counters, instead of numerals. The beads are arranged on wires stretched across a frame. Each wire represents the ones, tens, hundreds, and so on.
The abacus was probably invented by an ancient group of people known as Sumerians in Mesopotamia. The ancient Egyptians, Greeks,…

The invention of a numeral system allowed numbers to be broken up into units, tens, hundreds, and so on. Therefore it made written calculations easier and the abacus became unnecessary.

Mathematics is the subject most of us love to hate. Calculations and playing with numbers are part and parcel of our everyday lives.

Abacus learning makes math calculation process easy and interesting. Introduction of abacus at the apt age is important as it would then only help the child to master it. So, today let's dig in a bit deeper to know more about it.

"ABACUS" is a Latin word derived from the Greek word **ABAX** which means a calculating table. It's a simple device which originated in Babylon about 5000 years ago. It is still widely popular in Japan, China, the Middle East and Russia.

Two of the most commonly used abacus are the Chinese and the Japanese. The Chinese abacus also known as 'saunpan' consist of 5 beads below and 2 beads above the reckoning bar. It can be used to count upto 16 different numbers from 0 to 15. On the other hand, the Japanese abacus, also known as the "soroban" consist of 4 beads below and 1 bead above the reckoning bar. Each rod can represent 10 different numbers from 0 to 9.
A horizontal crossbar perpendicular to the rods separates the abacus into two unequal parts. The beads above the crossbar are known as heaven beads or upper beads, and those below the crossbar are called earth beads or lower beads. Counting on abacus is done by moving the beads up and down the rods. The beads are moved with the help of the thumb and the index finger. Moving the bead towards the reckoning rod is used for addition and moving away for subtraction. Lower beads are moved up by the thumb finger and for all others bead movement the index finger is used. Before using the abacus make sure that all the beads are in the neutral position representing zero. This can be done by placing the thumb and the index finger on the horizontal crossbar lightly and moving it across from left to right. This has to be done every time before starting a new calculation.

The abacus is an ancient device to help solve math problems. By moving the beads, people can add, subtract, multiply, and divide numbers.

Test your analytical skill

P, Q, R, S, T, U, V and W are sitting round the circle and are facing the centre: P is second to the right of T who is the neighbour of R and V. S is not the neighbour of P. V is the neighbour of U. Q is not between S and W. W is not between U and S.

Which one is immediate right to the V if the position of S and U are interchanged ?

a) P

b) T

c) U

d) R

e) None of these

(Answer will be explained in the next issue)