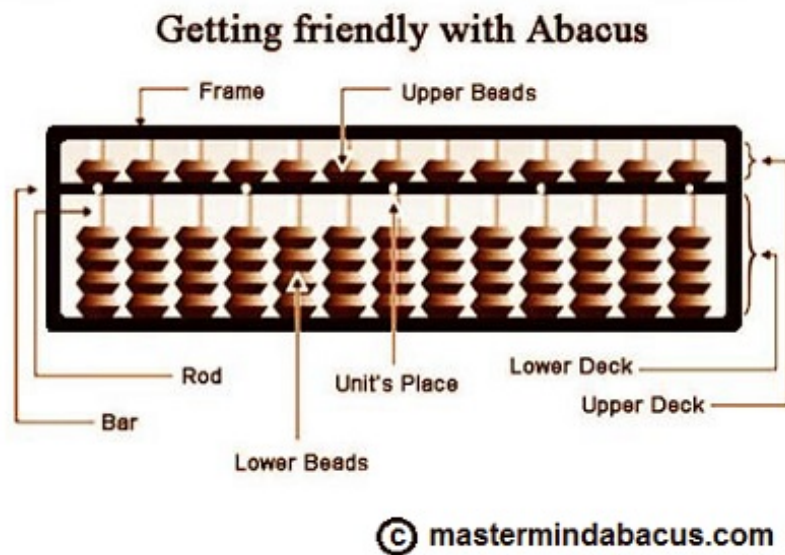# Chinese Abacus: 600 Years and Counting

Chinese abacus is a simple device for performing mathematical calculations. Known as the Fifth Invention of Ancient China, the abacus can perform addition, subtraction, division and multiplication; it can also be used to obtain square roots and cubic roots.

The Chinese abacus and zhusuan (reckoning by the abacus) were created by a famous mathematician Cheng Dawei of the Ming Dynasty (1368-1644), known worldwide as "the great master of zhusuan". In Japan, he is worshipped as "the God of Arithmetics," and August 8 was established as the "abacus festival" in commemoration of him. A typical elementary abacus has 10 parallel wires strung between two boards on a frame, with nine beads on each wire. Each bead has the same value: 10, a multiple or sub multiple of 10. For example, all of the beads on a particular wire can have a value of 1, making this the unit wire -- or 10, making this wire the "tens wire."

Numbers are represented and added on the abacus by grouping beads together. To represent 155, five beads on the unit wire are separated from the others on the same wire, five beads on the tens wire, and one bead on the hundreds wire. To add 243 to 155, three more beads on the unit wire are slid over to join the group of five, four more beads on the tens wire join the previous five, and two more beads on the hundreds wire are added to the one bead. The number 398 is now represented on the abacus. Subtraction can be performed by separating groups of beads. More elaborate processes are used to perform multiplication and division.

The abacus is used for making calculations in the Middle East, Asia and Russia; one particular use for the abacus is to teach children simple mathematics, especially multiplication, since it simplifies the addition and subtraction of Roman numerals and is easy to learn. The abacus is an excellent substitute to memorizing the multiplication table -- a particularly detestable task for children. It is also an excellent tool for teaching other basic numbering systems since it is easily adaptable. [...]

The abacus is still in use today by shopkeepers in Asia and "Chinatowns" abroad. Asian schools still teach how an abacus is used, including a few schools in the West. Blind children are also taught to use the abacus.

(Source : http://www.chinaculture.org/gb/en_chinaway/2004-03/31/content_46515.htm)