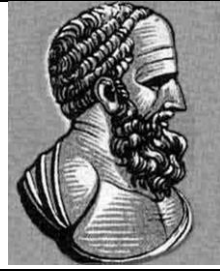


## Real Life Applications of Trigonometry

- The word Trigonometry comes from the ancient Greek words "Trigonon" meaning Triangle and "Metron" meaning Measurement.
- The "Father of Trigonometry" was an ancient Greek mathematician named Hipparchus (3BC).
- Some uses of Trigonometry are outlined below:



1) One very useful application of trigonometry is to be able to calculate the heights of different things. You will see after studying Trigonometry how it can be used to measure the heights of trees, buildings, waves, mountains and many more things. The depth of the Grand Canyon can be measured using Trig.



2) Sine and cosine waves are fundamental to the study of light and sound waves. A good understanding of trigonometry is needed in many types of engineering including electrical and sound engineering as well as telecommunications and music.



3) Trigonometry is used in digital imaging in medicine. Computer generation of complex images of the human body are made detailed and accurate thanks to a technique known as triangulation. CAT and MRI scans are examples of this.



4) Trigonometry is used extensively in construction of any kind e.g houses, suspension bridges, domes. Architects need to be able to calculate exact angles of intersection of support beams or struts to ensure stability and safety. Civil Engineers use trig in the design of suspension bridges and their supporting cables.



5) Trigonometry is used in astronomy to measure the distances between celestial bodies e.g. between the moon and the earth and between the earth and the sun.

