

History of trigonometry essay sample

[Science](#), [Mathematics](#)



The History of Trigonometry dated back to the early ages of Egypt and Babylon. Many different Astronomers and Mathematicians all took place in helping create Trigonometry, people from Hipparchus, all the way to Isaac Newton. They all contributed a little something, something to formulate what we know as trigonometry. The places these events took place in different place like Greece and India, to Sweden to Germany. Trigonometry was formulated for computations in astronomy. A Greek Astronomer by the name of Hipparchus compiled the trigonometric table which measured the length of the chord subtending the various angles in a circle of a fixed radius r . In other words, Hipparchus made the first piece of the puzzle for the Unit Circle. His table was done in increasing degrees of 71.

Another man, buy the name of Ptolemy took that piece of the puzzle and created a table of chords which increased in 1 degree, this took place in the 5th century. This next piece was known as Menelaus's theorem which formed the foundation of trigonometric studies for the next 300 years. Aroud that same time, an Indian mathematician took the chords out and replaced them with sine functions instead. This was a ratio, but rather the opposite of the angle in a right angle of fixed hypotenuse. A Muslim astronomer now compiled all of these ideas of both the Indians and the Greeks.

Now, in the 13th century, Germans made modern trigonometry by defining trigonometry functions as ratios rather than lengths of lines. Another Astronomer from Sweden discovered logarithms, and then another large step in Trigonometry was made by Isaac Newton whom founded differential and integral calculus. The history of Trigonometry came about mainly due to the purposes of time keeping and astronomy.

Four different careers that use trigonometry are Sailors, Astronomy, Architects, and Surveyors. Sailors use trigonometry for geography and navigation. Sailors are known to have been using trigonometry for these reasons to determine their position when they were in the middle of the sea without any other means. Astronomers used Trigonometry to calculate the position of planets, it's also used as the geographical concept of latitude and longitude, in which you can identify and locate any area in the world. An example of how Surveyors use Trigonometry is if you know two sides of a triangle, trig lets you find the third. So if you want to know the distance across a lake, measure two lines along the side of the lake such that they form a triangle with the line across the lake, and you can find the distance across all by using Trigonometry.

Science and mathematics are themselves a field of application of trigonometry. Sciences and mathematics such as analytic geometry, calculus, dynamics, satellite launching, physics and chemistry are all enriched and enhanced by trigonometry. In architecture, trigonometry plays a huge role in the designing and building plans. One way that architects use trigonometry is by having to calculate exact angles of intersection for components of their structure to ensure ability and safety. Some instances of trigonometric use in architecture include arches, domes, support beams, and suspension bridges. Architecture remains one of the most important sectors of our society as they plan the design of buildings and ensure that they are able to withstand pressures from inside. Example of how Architects use trigonometry.

Works Cited

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