



Name: _____ () Class: _____ Date: _____

Trigonometry

Lesson Package

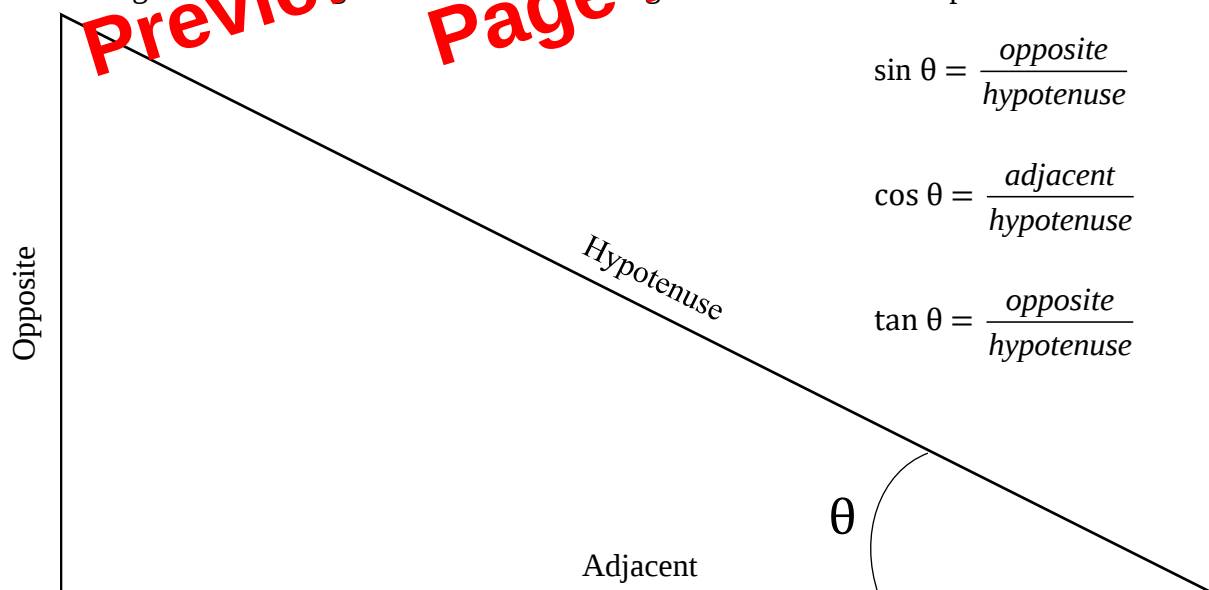
Unit 7 – Trigonometry

1.1 What is trigonometry?

Trigonometry is the branch of mathematics dealing with the relations of the sides and angles of triangles with relevant functions of any angle. The first work on trigonometric functions was produced by the Greek mathematician Hipparchus in about 140 BC on the topic of chords in a circle. Although these works have not survived, it is claimed that twelve books of tables of chords were written by Hipparchus. This makes Hipparchus the founder of trigonometry. In this lesson package, we will explore what are trigonometric functions, useful trigonometric identities and applications of trigonometry.

1.2 What are trigonometric functions and ratios?

Trigonometric functions include sine, cosine and tangent. These functions relate the angles in the triangle to the ratio of the length of the sides with respect to each other.



$$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}}$$

$$\cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$$

$$\tan \theta = \frac{\text{opposite}}{\text{adjacent}}$$