



# Introduction to Further Applications of Trigonometry

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*General Sherman, the world's largest living tree. (credit: Mike Baird, Flickr)*

The world's largest tree by volume, named General Sherman, stands 274.9 feet tall and resides in Northern California.

Source: National Park Service. "The General Sherman Tree." <http://www.nps.gov/seki/naturescience/sherman.htm>. Accessed April 25, 2014.

Just how do scientists know its true height? A common way to measure the height involves determining the angle of elevation, which is formed by the tree and the ground at a point some distance away from the base of the tree. This method is much more practical than climbing the tree and dropping a very long tape measure.

## Introduction to Further Applications of Trigonometry

In this chapter, we will explore applications of trigonometry that will enable us to solve many different kinds of problems, including finding the height of a tree. We extend topics we introduced in [Trigonometric Functions](#) and investigate applications more deeply and meaningfully.