

Math 1613 - Trigonometry

Written Assignment 1 - Due 2019.06.09

Directions: Please answer the following question in complete sentences. Be sure to label all geometric objects in any illustrations (if any). I will accept an answer in a scanned image format, as a pdf, or as a picture taken and sent from your awesome smart phone.

Question: The depths of unknown craters on the moon can be approximated by comparing the lengths of their shadows to the shadows of nearby craters with known depths. The crater Aristillus is 11,000 ft deep, and its shadow was measured at 1.5 mm on a photograph. Its companion crater, Autolycus, had a shadow of 2.7 mm on the same photograph. Use similar triangles to determine the depth of the crater Autolycus.