

MATH

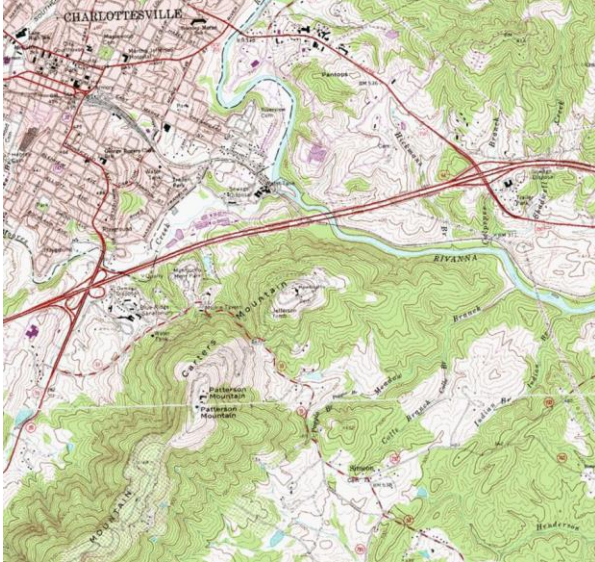
Monticello Topography

Name:

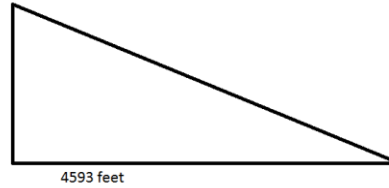
Thomas Jefferson inherited the land at Monticello from his father and later designed and built his home on the mountain top. On October 17, 1777, Jefferson acquired the 483 acres of adjacent Montalto (high mountain). This is considered of historical significance because it was his first land acquisition.

Topographical Map of Monticello and Montalto.
Source: USGS

Diagram not to scale.



Montalto 1280 feet
above sea level



Monticello 867 feet
above sea level

QUESTIONS: Show all work in the spaces provided.

1. If you are on top the Monticello, what is the angle of elevation to the top of Montalto?

Answer:

The vertical change from Monticello to Montalto is 413 feet. The angle of elevation is $\tan^{-1}(413/4593) = 5.14^\circ$.

