Problem 69

A nautical mile, by definition, is one minute of longitude at the equator. It is also defined as 1,852 meters by international agreement. What is the radius of a sphere using the information given?

Problem 70

You have a deed that reads, “Beginning at latitude 40°00’00" North and longitude 120°00’00" West; thence North 10 miles; thence East 10 miles; thence South 10 miles; thence West 10 miles.”

How far from your point of beginning will you be after surveying this deed? (Use the radius calculated in Problem 69 and assume the earth is a sphere.)