Worksheet 6.1b

Facts you will need:

a) The earth is sphere of radius 4000 miles.

b) One mile equals 1.60934 kilometers.

c) $\theta = \frac{s}{r}$ where s = arc length, r = radius, and θ is in radians.

d) The island of Pohnpei is about 7° north of the equator.

01.   What is the radius of the earth in kilometers?

02.   How many miles is it from Pohnpei to the north pole?

03.   How many miles is it from Pohnpei to the south pole?

04.   A boat is in the ocean 700 miles due north of Pohnpei. What is the latitude of the boat?

05.   The Avon Isles near Australia lie 19° south of the equator and are due south of Pohnpei. How many kilometers from Pohnpei are the Avon Isles?

06. A pizza with a diameter of 14 inches is cut into 5 equally sized pieces. What is the length of the crust on one piece?