Subject: What is the problem? Posted by Ruby on Wed, 28 Oct 2009 06:28:25 GMT

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I wrote a simple program to caculate the distance between two location (lon1,lat1), (lon2,lat2)

function earth_dis ,lon1,lon2,lat1,lat2

b1 = !pi*lat1/180.0

b2 = !pi*lat2/180.0

a1 = !pi*lon1/180.0

a2 = !pi*lon2/180.0

dis = 6378.1*acos(cos(b1)*cos(b2)*cos(a1-a2)+sin(b1)*sin(b2))

RETURN, dis

END

But When I tried to test the program, the results turned to be like

IDL> print, earth_dis(4.0,4.0,4.0,4.0)

-NaN

IDL> print, earth_dis(8.0,8.0,8.0,8.0)

2.20215

In both cases, the result should be straightforwardly equal 0. Then what is the problem with my program or IDL?