
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 ?
