

2003

GPS Points - 2nd Family GeoScience Night

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GPS Points
Family GeoScience Night #2
Quadrangle Near Sioux City, IA

96 degrees to 96 Degree 30' W Longitude
 42 degrees to 42 degrees 30' N Latitude

Locate and mark the following points on the Grid Paper that was supplied to you.

City #	Longitude (W) From 96 degrees to 96 degrees 30'	Latitude (N) From 42 degrees to 42 degrees 30'	What's the name of the city/town/village?
1	96 degrees 28'	42 degrees 18'	
2	96 degrees 29'	42 degrees 29'	
3	96 degrees 30'	42 degrees 9'	
4	96 degrees 23'	42 degrees 30'	
5	96 degrees 6'	42 degrees 1'	
6	96 degrees 15'	42 degrees 1'	
7	96 degrees 21'	42 degrees 7'	

Cities to choose from:

1. Decatur, NE
2. Homer, NE
3. Macy, NE
4. Onawa, IA
5. Sioux City, IA
6. Walthill, NE
7. Winnebago, NE

Things to remember:

1. Lines of longitude converge to the poles; line of latitude are the same distance apart and do not converge to the poles.
2. There are 360 degrees around the Earth at the equator. Each degree is 60 nautical miles in width except where line converge. Each of these divisions is called a minute. So 1 minutes = 1 nautical mile.
3. The distance around the Earth is 360 degrees X 60 nautical miles for each degree = 21,600 nautical miles. To convert nautical to statute miles multiply by 1.15 so 21,600 nautical miles x 1.15 = approximately 24,840 statute miles.
4. A second is 1/60 of a nautical miles (actually 6,080 feet). You can divide a second (1/60 of a nautical mile) into 1,000ths so that 1/1,000 = about 6 feet.