Oceanography 10 - Activity 1 **Name** Key

Maps, Charts, Latitude and Longitude

Part 1: Using the Fort Bragg topographic map determine the following

1. What the Map Name? Fort Bragg Quadrangle, California Type of Projection? Polyconic Projection,
2. Publication year 1960 Was it updated and when 1978
3. Fractional scale of the chart? 1:24,000
4. Using the fractional scale determine:
   a. how many feet does one inch on the chart represent? 1 inch = 2,000 feet 1" X (24,000) X (1'/12")
   b. how many meters do five cm on the chart represent? 5 cm = 1,200 meters 5cm X (24,000) X (1m/100cm)
   c. how many nautical miles on the chart is 5.25° Latitude? 315 Miles 5.25 deg X (60 NM/1 deg)
5. What are the units of the soundings? feet
6. What is the water depth contour in Noyo Bay? 18'
7. What is the elevation of the benchmark on Laguna Point? 27'
8. What is the distance from:
   a. The Fort Bragg BM to the Laguna Pt BM:

      300,000 cm cm; 3,000 m meters; 1.875 miles miles; 3 km kilometers

   b. The mouth of Hare Creek to the mouth of Digger Creek

      96,000 cm cm; 960 m meters; 0.6 miles miles; 0.96 km kilometers
9. What is the magnetic declination for this map? 17.5 degrees

8. a. 12.5 cm X (24,000) = 300,000 cm
300,000 cm X (1 m /100 cm) = 3,000 m
3,000 m X (1 miles /1,600 m) = 1.875 miles
1.875 miles X (1.6 km / 1 mile) = 3 km

8. b. 4 cm X (24,000) = 96,000 cm
96,000 cm X (1 m /100 cm) = 960 m
960 m X (1 miles /1,600 m) = 0.6 miles
0.6 miles X (1.6 km / 1 mile) = 0.96 km