Geology 301 Practice Lab Test 3

1. Convert the following representative fractions to ground distance (6 pts.):
   a. 1:100,000 \( 1" = \underline{\underline{\text{miles}}} \)
   b. 1:633,600 \( 1" = \underline{\underline{\text{miles}}} \)

2. Convert the following ground distances to representative fractions (6 pts.):
   a. \( 1" = 3 \text{ mile} \)
   b. \( 1" = 20,834' \)

3. How many Sections are there in a Township? (1 pt.)

4. What is the area size of a Section? (1 pt.)

5. How many linear feet are there in 1 mile? (1 pt.)

Questions 6-10 refer to the Norden Quadrangle topographic map.

6. What is the easternmost longitude line on the map? (2 pts.)

7. What is the southernmost latitude line on the map? (2 pts.)

8. What is the magnetic declination of the map? (1 pt.)

9. What is the elevation of the Benchmark in Section 24, T17N, R14E? (2 pts.)

10. What is the location of the top of Mount Judah? (4 pts.)
11. On next map (Map #1):
   - What is the scale of Map #1? (1 pt.)
   - What is the gradient in feet/mile along line B - B'? (4 pts.)
   - What is the distance and bearing from the spot elevation 1643 in Section 17, T13N, R13E to Grizzly Peak in Section 22, T13N, R13E? (4 pts.)

12. Create a contour map based on the elevation points shown on MAP #2. (40 pts.)
   - Be sure to label index contours.
   - Use the contour interval indicated

   Using your contour map, draw a topographic profile on the profile cross-section provided (10 pts.).

   What is the vertical exaggeration of this topographic profile? (5 pts.)

13. On MAP #3, what are the latitude and longitude coordinates for: (6 pts.)
   - Location A ____________________.
   - Location B ____________________.
   - Location C ____________________.
CI = 100'

Scale 1:12,000

MAP #2
Topographic Profile

A

8000

7500

A'