

FO-2213 Forest Measurements

Problem Set 4: Distance, Direction, Area, and Geographic Location

Using the Bradley 7.5 Minute Topographic Quadrangle:

1. The scale of the quad sheet is : 1 inch = _____ ft = _____ chains
2. The highest elevation point in Section 17, T17N, R13E is: _____ ft above sea level.
3. The major creek in S17, T17N, R13E is flowing in a: _____ direction.
4. The approximate road distance between Dorman Lake and Ennis Roads is: _____ chains.
5. The approx. road distance between Dorman Lake Road and Keaton Tower Road is: _____ miles
6. The UTM coordinates for the four corners of the following legal description would be:
NE1/4, SE1/4, Sec 13, T17N, R13E Contains: _____ acres

NE Corner: _____, _____
NW Corner: _____, _____
SW Corner: _____, _____
SE Corner: _____, _____
7. The distinguishing topographic feature within the parcel described above is: _____
8. If you navigate to the UTM coordinates 315,899.87 m E, 3,681,514.52 m N, you would be located at: (describe) _____
9. If you had to cruise the area in the NE portion of the section, as described by the UTM coordinates in Question 8 above and bounded by the section lines on the north and east sides and the roads on the south side, the area would encompass approximately: _____ acres.
10. If sample data showed a CV%= 50% and the allowable error was 10%, how many 1/5 acre plots should be established on the tract in Question 9? _____ plots
11. If you established cruise lines at L chain intervals and plots at P chains along the cruise lines, the plot (P) and line (L) distances for a relatively square grid to achieve the 10% allowable error for the timber volume estimate in the tract in Question 9 would be: P= _____ chains by L= _____ chains or 1 plot per _____ acres.
12. Which direction would you orient the cruise lines _____, and how many cruise lines would be needed _____