

## CIVL 1112 – Assignment #2

Name: \_\_\_\_\_

### Objective

The purpose of this assignment is twofold: first, you will have an opportunity to practice your skills in computing elevations from data recorded from a differential leveling survey, and second, you will get a chance to practice your skills in developing simple engineering spreadsheets for surveying applications.

You **must** submit the coversheet for the assignment, your work for Parts 1-2, and printouts of Parts 3-4. Also, submit your Excel file for Parts 3-4 to the Dropbox in Canvas.

### Problems

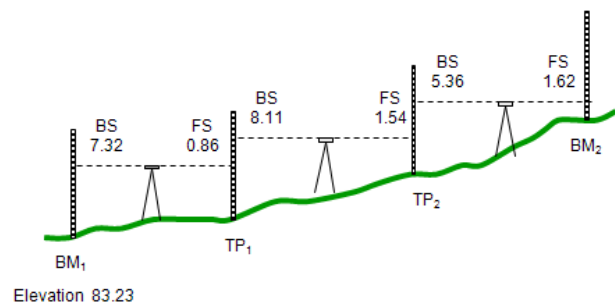
1. Complete and check the level notes shown below by hand calculations.

| Station         | BS   | HI | FS    | Elevation |
|-----------------|------|----|-------|-----------|
| BM <sub>1</sub> | 3.10 |    |       | 100.00    |
| TP <sub>1</sub> | 6.44 |    | 9.82  |           |
| TP <sub>2</sub> | 8.76 |    | 6.86  |           |
| TP <sub>3</sub> | 7.12 |    | 3.27  |           |
| BM <sub>2</sub> |      |    | 10.44 |           |

2. Complete and check the level notes shown below by hand calculations.

| Station         | BS    | HI | FS    | Elevation |
|-----------------|-------|----|-------|-----------|
| BM <sub>1</sub> | 7.432 |    |       | 864.384   |
| TP <sub>1</sub> | 7.121 |    | 1.862 |           |
| TP <sub>2</sub> | 6.946 |    | 6.733 |           |
| TP <sub>3</sub> | 5.397 |    | 6.491 |           |
| TP <sub>4</sub> | 4.312 |    | 4.682 |           |
| BM <sub>2</sub> |       |    | 5.111 |           |

3. Develop a spreadsheet to compute the elevations from backsight (BS) and foresight (FS) data.



4. Use your spreadsheet to compute the elevations from backsight (BS) and foresight (FS) data.

