Name _____

BASIC CONSTRUCTION

Height Exercise

1. Backsight
   -Foresight
   D.

2. Backsight
   -Foresight
   D.

3. Backsight
   -Foresight
   D.

4. Backsight
   -Foresight
   D.

TOTALS

1.
2.
3.
4.

Total Difference

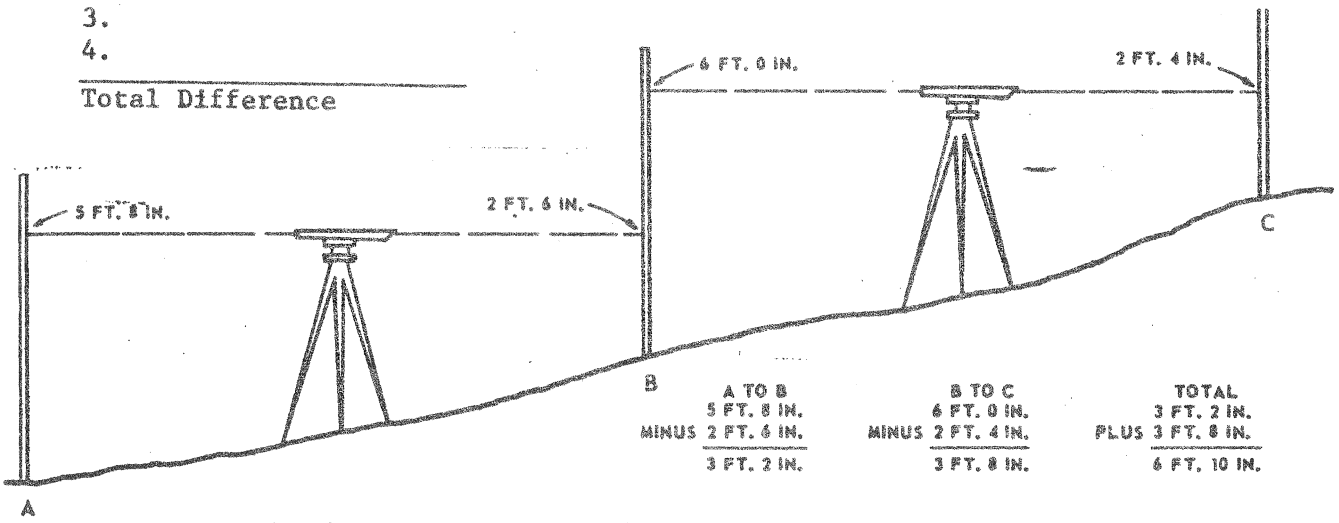

Fig. 3-14. When there is a great amount of slope or long distances are involved, the instrument will need to be set up at two or more locations.

The instructor will pick two points with enough height difference so the students must set up the builders level several times to determine the total difference in elevation. In the example shown, A is the backsight B is the foresight. For the second set up B becomes the backsight and C is the foresight. Record your readings above. In the apaces indicated, find the differences in elevation and total them.

Name _____

CONSTRUCTION EXERCISE

Stake Heights

Readings - Student 1

Stake: 1.
2.
3.
4.
5.
Grade:

Readings - Student 2

Stake: 6.
7.
8.
9.
10.
Grade:

Elevation Differences

Gr. & 1 _____ Gr. & 6 _____

Gr. & 2 _____ Gr. & 7 _____

Gr. & 3 _____ Gr. & 8 _____

Gr. & 4 _____ Gr. & 9 _____

Gr. & 5 _____ Gr. & 10 _____

List all readings neatly. Unreadable ones will be incorrect.

The instructor will set 10 numbered stakes preferably on uneven ground. One stake labeled "Grade" will be set at an elevation between the height of the highest and lowest numbered stakes. The students, working in pairs, will properly level the instrument in a central location to take readings from all eleven stakes. Each student will record one half of the stake height readings and the grade stake height. It is a good idea to take readings from the top of the stakes to compare reading differences accurately. The students should be within 1/4" of those differences determined by the instructor.

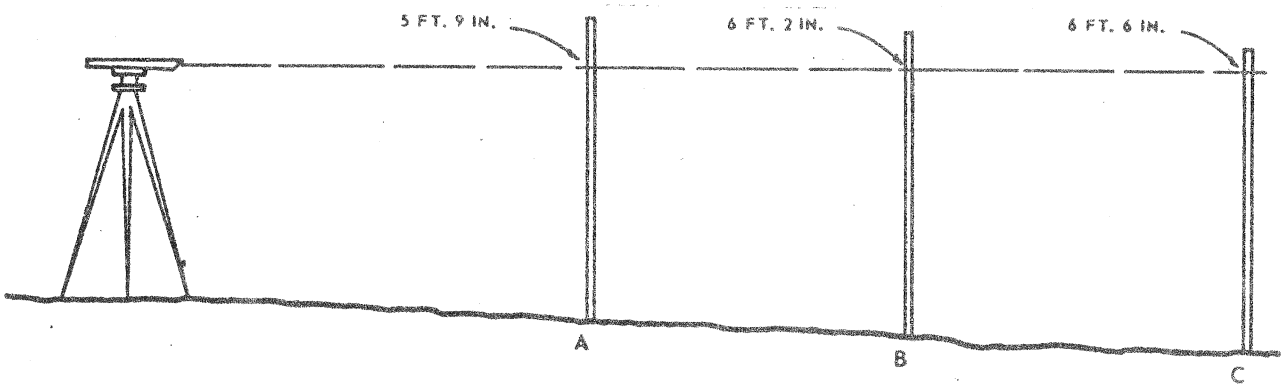

Fig. 3-11. Leveling. Point A is 9 in. higher than point C.