

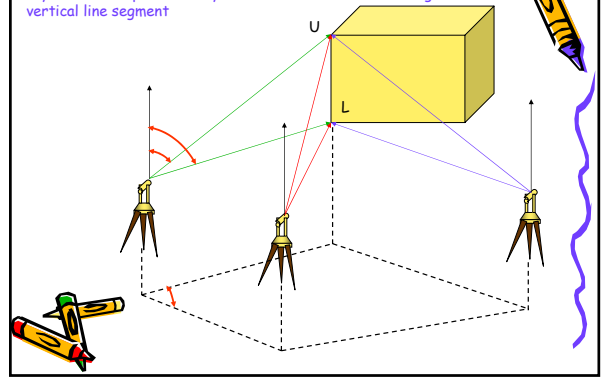
CE200 SURVEYING

Lecture 5
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INDIRECT MEASUREMENT OF VERTICAL LINE SEGMENT

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Suppose a vertical line segment that you are not able to measure the length of it directly even you can not reach the foot of this line on any horizontal plane. And you are asked to find the length of this vertical line segment



EQUIPMENT

- ❖ Theodolite
- ❖ Ranging Rods
- ❖ Plumb-bob
- ❖ Steel Tape

Fieldwork 5

- Choose a vertical line segment with an approximate length of 7-10m.
- Mark three points around forming 2 triangles with a common side.
- The length of sides should be 40m approximately.
- Make necessary measurements. (3 sets of vertical angle, 3 sets of horizontal angle, distance measurement in two ways)
- Calculate the length of vertical line segment.

You will give us:

- ✓ Definition of the problem (one copy for each subgroup)
- ✓ Proof for the formula given
- ✓ Results of measurements made (one copy for each subgroup) and average of your measurements
- ✓ Sketch (showing surrounding buildings)
- ✓ Report