



Lecture 1.2
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CE200 SURVEYING

DISTANCE MEASUREMENTS

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AIM OF FIELDWORK 1

- Setting up a ranging rod at a point in vertical position.
- Ranging a line in the field.
- Measuring horizontal distances.
- Dropping a perpendicular from a point onto a line.
- Erecting a perpendicular from a point on the line.



STATUS OF TEAMS ???

WARNING !!!

- ✓ Do not lay down the tape on the ground, use plumb-bob.
- ✓ Measure a line **at least twice**.
- ✓ Pay attention to the intermediate points to be on the line (must be correct ranging).
- ✓ Stand at least 1m far from the rod while ranging.
- ✓ Each member of a subgroup should try operations like
 - ✓ Plumbing a rod
 - ✓ Ranging
 - ✓ Measuring with steel tape
- ✓ All measurements should be recorded in the fieldbook.



REPORTS

The following items should be in the fieldbook of each member.

- * the number of fieldwork
- * the date and the place.
- * sketch showing surroundings and measurements
- * calculations
- * a verbal report
 - aim of fieldwork
 - instruments used
 - weather conditions
 - operations performed
 - difficulties encountered
 - results of controls comments critics suggestions
 - conclusion
 - what else you want to write

Try to write your own report !!



FIELDWORK 1a & 1b

Fieldwork 1a: In a flat area...

- dropping two perpendiculars
- erecting two perpendiculars

AB > 40 m.

Fieldwork 1b: In a sloped area...

- dropping one perpendicular
- erecting one perpendicular

AB > 20 m.

