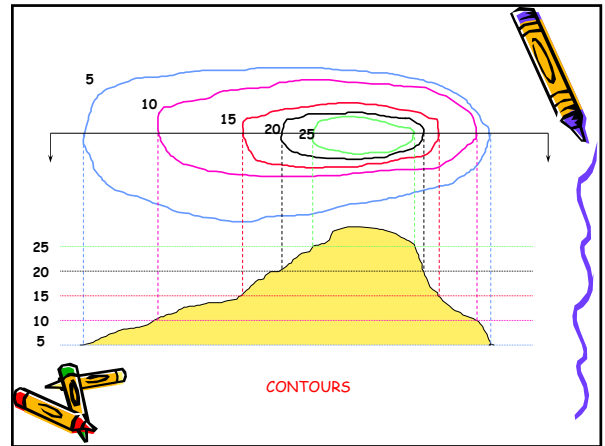


CE200 SURVEYING

LOCATING CONTOUR LINES ON A PLAN

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Lecture 3.1
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CHARACTERISTICS OF CONTOURS

- ❖ A *contour* is an imaginary line connecting points having the same elevation.
- ❖ The vertical distance between level surfaces forming the contours is called the *contour interval*.
- ❖ The contour interval selection depends on the diversity of relief in the area being mapped as well as the purpose and scale of the map.
- ❖ Contours cannot cross, split or join other contours.
- ❖ The distance between contours indicates the steepness of a slope.
- ❖ A contour must be a single continuous line and should not branch into two contours of the same elevation.

How to locate contour lines on a plan

There are several methods used to locate contours. We practise only one of them as fieldwork 3. It is called as locating contours by cross-sections.

Procedure

- Mark approximately equally spaced contour points on the ground.
- Make horizontal measurements to fix contour points on the plan.
- Make measurements to determine the elevation of contour points.
- Plot the points and write down their elevations on the plan.
- Construct contours by interpolation.

FIELDWORK 3 PHASE 1

- ✓ Divide the Ataturk Koru into places (small areas with minimum dimensions 40x40m).
- ✓ Each piece is the working area for one subgroup. Subgroups of a main group should be in *neighborhood*.
- ✓ Each subgroup should establish at least 4 reference points as a frame. These points must be protected in their locations on the ground **till the end of the course**.
- ✓ Neighboring subgroups must have at least two common reference points.
- ✓ Neighbor pieces must have an **overlapped area approximately 10 m. width**.
- ✓ Each subgroup should mark contour points max. 8 m apart from each other. These points should be protected in their locations on the ground until finishing fieldwork 3. (you need iron stakes for points in the field!!) - totally 40 points.

- ✓ Draw a **sketch** of your area showing reference and contour points and neighboring subgroups and other features.
- ✓ Give names to the reference and contour points by numbering. Use three digits for reference points starting with your subgroups number and indicate other numbers for common points given by neighbor subgroups, e.g. 111,112(211)
- ✓ Use two digits for detail points starting 01 ...
- ✓ Make horizontal measurements write on your sketch and draw a **plan** for your reference and contour points. (every possible horizontal measurements should be made!!)
- ✓ Write a **report** what you have done.

Attention

- You will go to field and identify your points.
- You will bring us your sketch.
- After our approval you will start taking measures.
- You must bring raw data before drawing plan. (Please write your subgroup number on the sketch!)
- These are all will be completed until 5 pm on Monday (14th of August 2006, Monday).
- The Subgroup who brings the sketch, plan and report of FW 3 phase 1 will start leveling (FW 3 phase 2).

