Daily Routine

- Sit in your appropriate seat quietly
- Have all necessary materials out
- All back packs on the floor
- All cell phones on silent and away in backpacks
- All music devices off and headphones out of your ears
- No food or drink except for water

Bell Work

- What is topographic map? What is it used for in science?

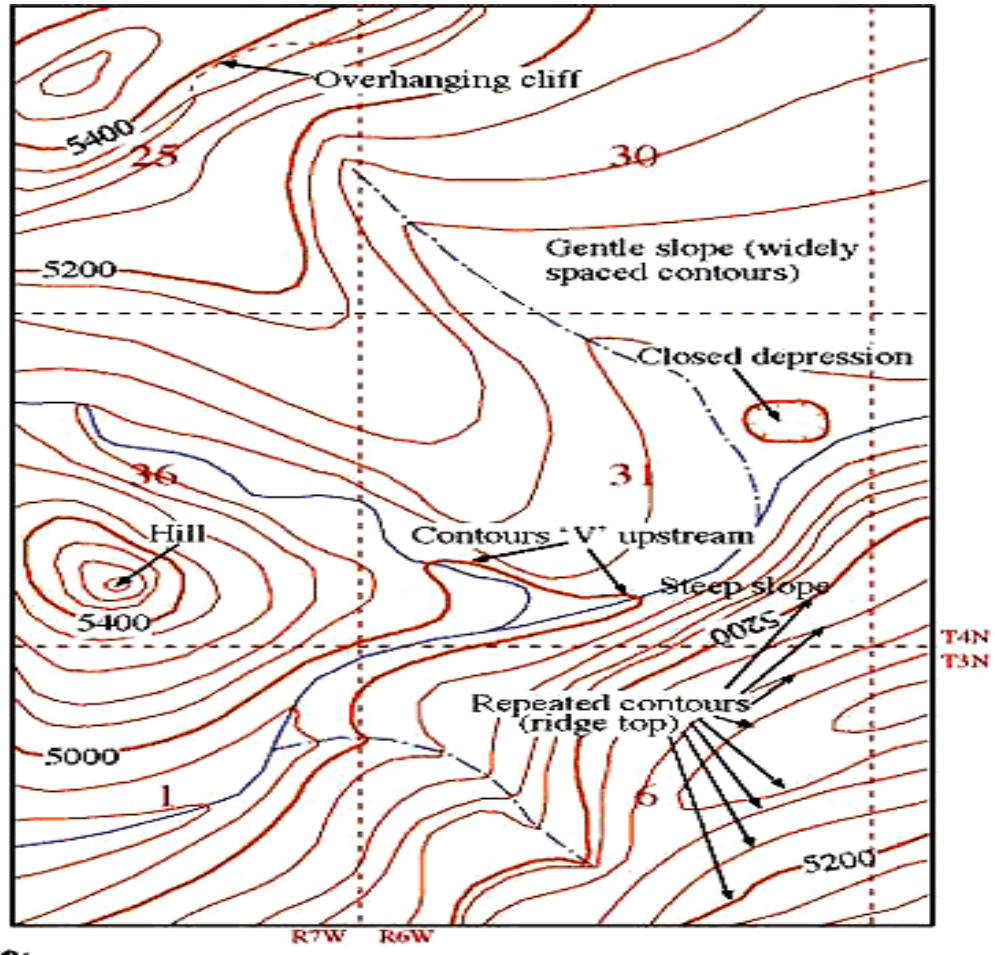
- What is a contour interval?

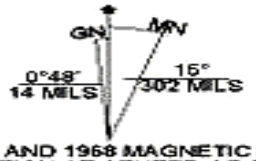
Earth Science Announcements

Quiz on Friday (Metric, Density, and Latitude and Longitude

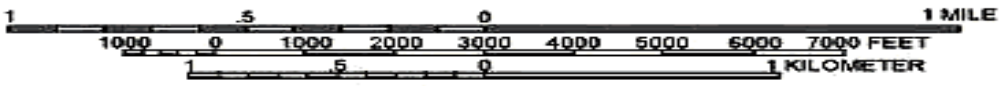
Topographic Map Project Due January 23rd

Topographic Maps





UTM GRID AND 1968 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET



CONTOUR INTERVAL 40 FEET
SUPPLEMENTARY CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Unit: **Maps**

Topic: **Topographic maps**

Objectives: I will be able to:

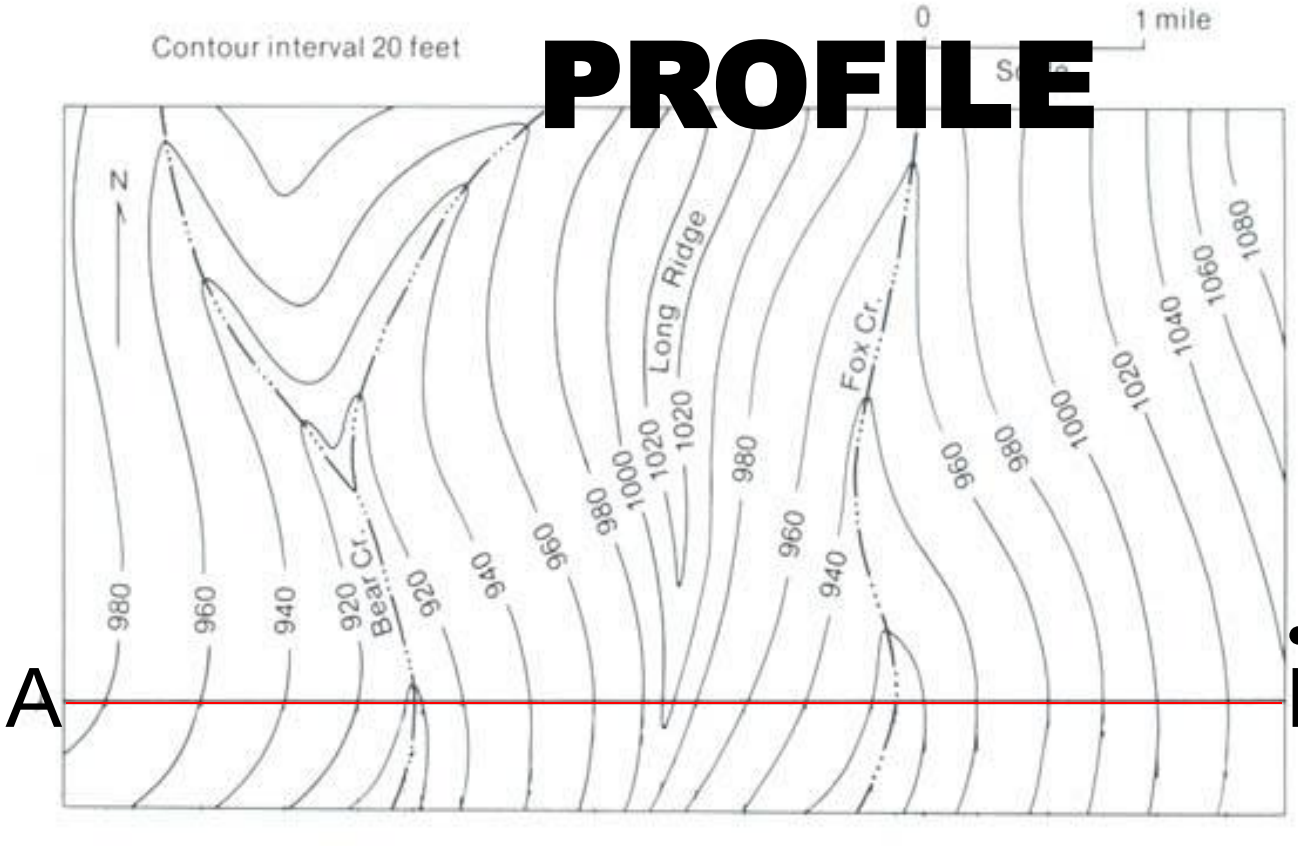
- To learn about topographic maps
- To learn mapping basics, such as contour lines and intervals
- To learn contour rules
- To draw a profile from contour lines on a topographic map

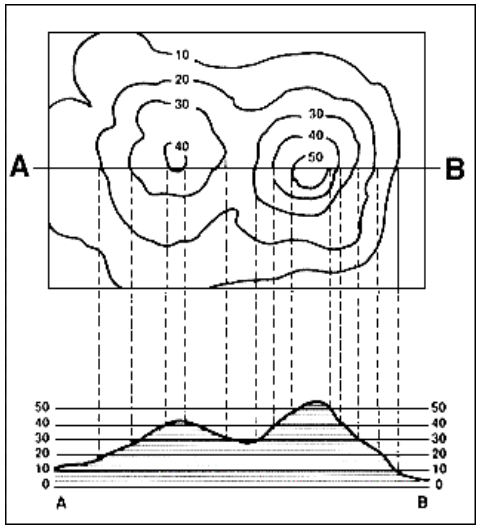
Going back to the Topo Maps: Answer in complete sentences!!!

- Describe the topography of your mapped area? Is it steep or gradual sloped? **Be detailed!!!**
- Describe the shape of the contour lines around rivers on the map.
- Try to find the highest point on the map. What is the elevation. Is the land steep or flat? Explain using the contour lines.
- What other symbols do you see on the map? What could these symbols represent?

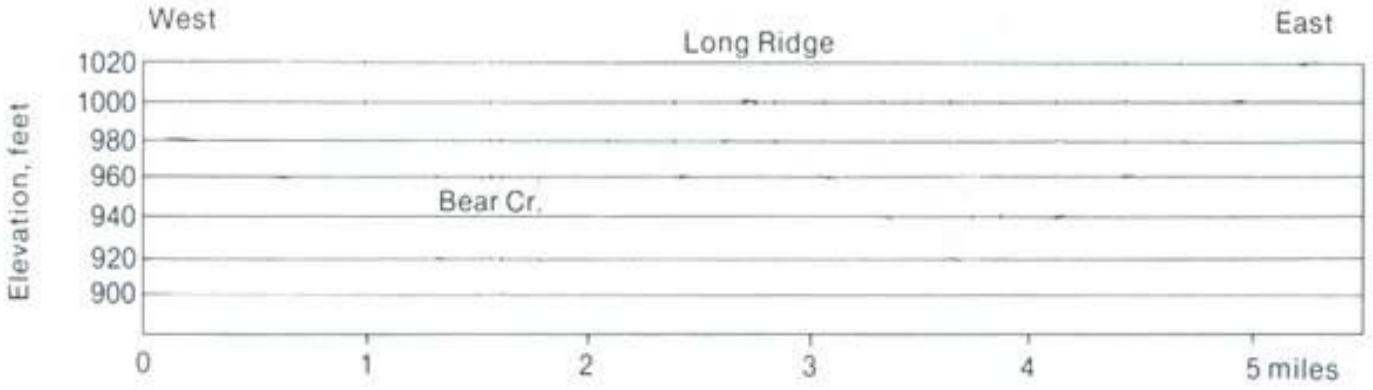
Practice Drawing Contour Lines

PROFILE





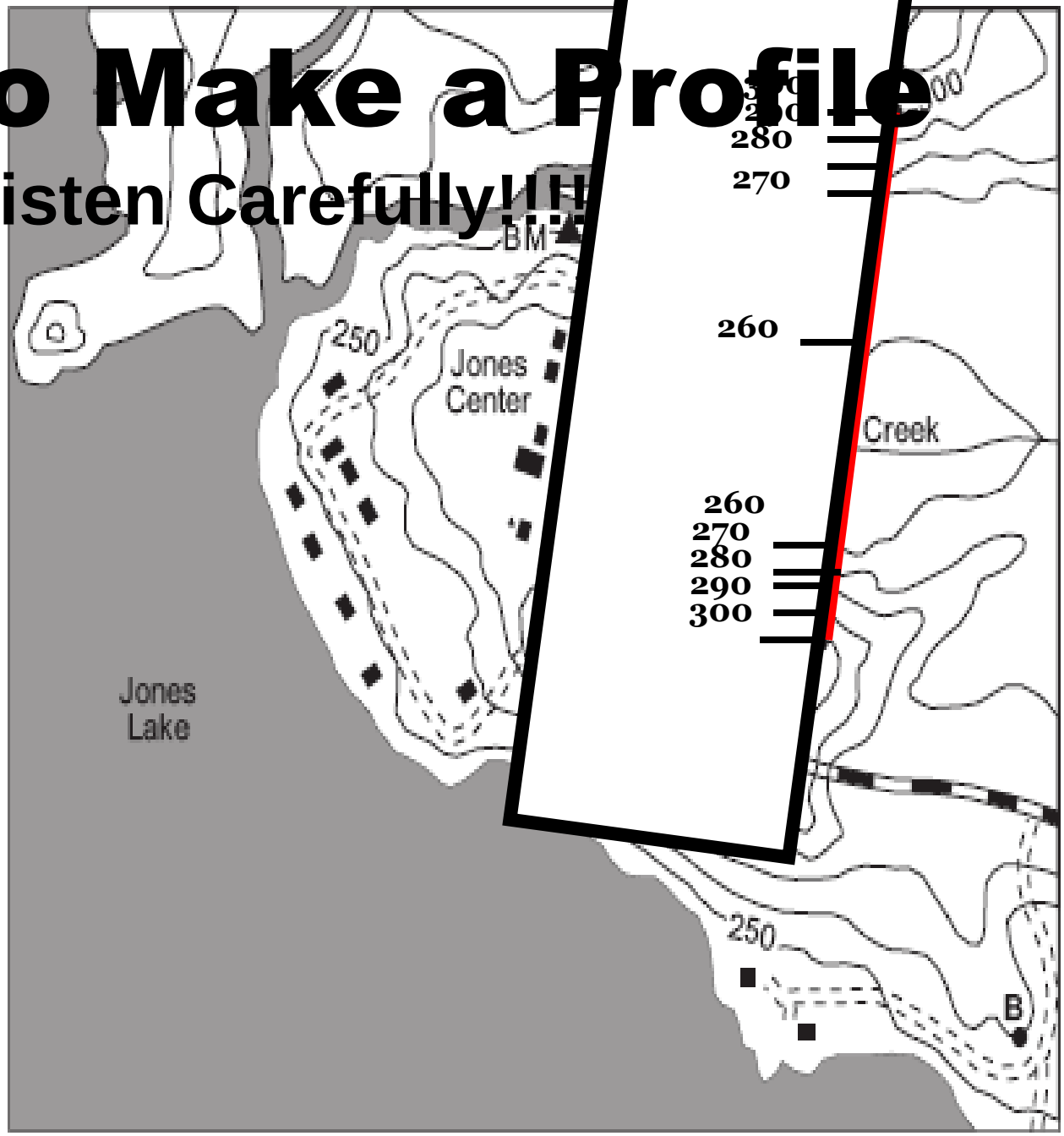
- A profile shows a side view from a flat topographic map.



How To Make a Profile

Listen Carefully!!!!

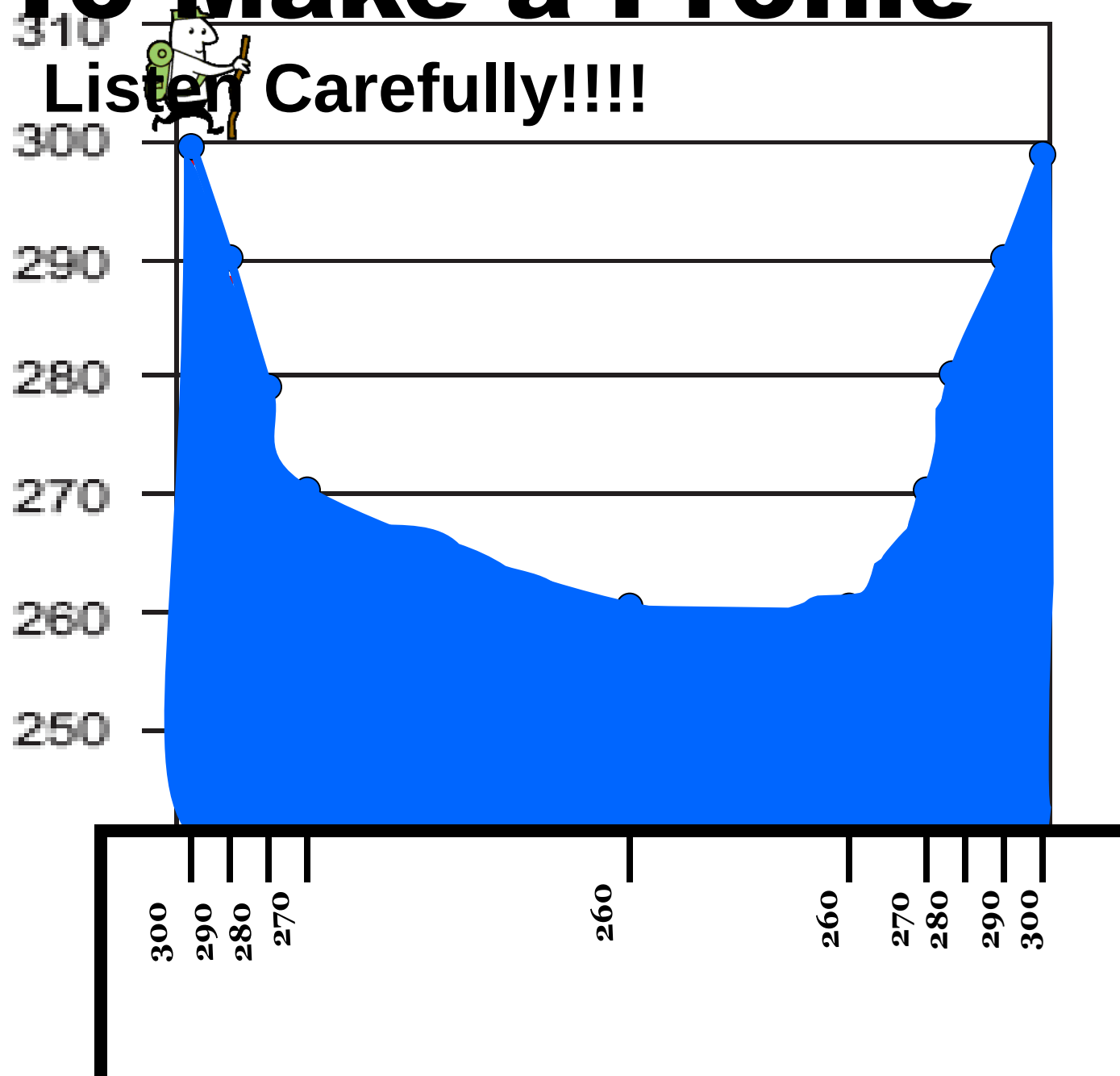
- **Step 1:** Draw a transect line. Sometimes the line will be drawn for you
- **Step 2:** take a sheet of paper and make “tick” marks where each contour line intersects the map
- **Step 3:** record elevation at each tick mark



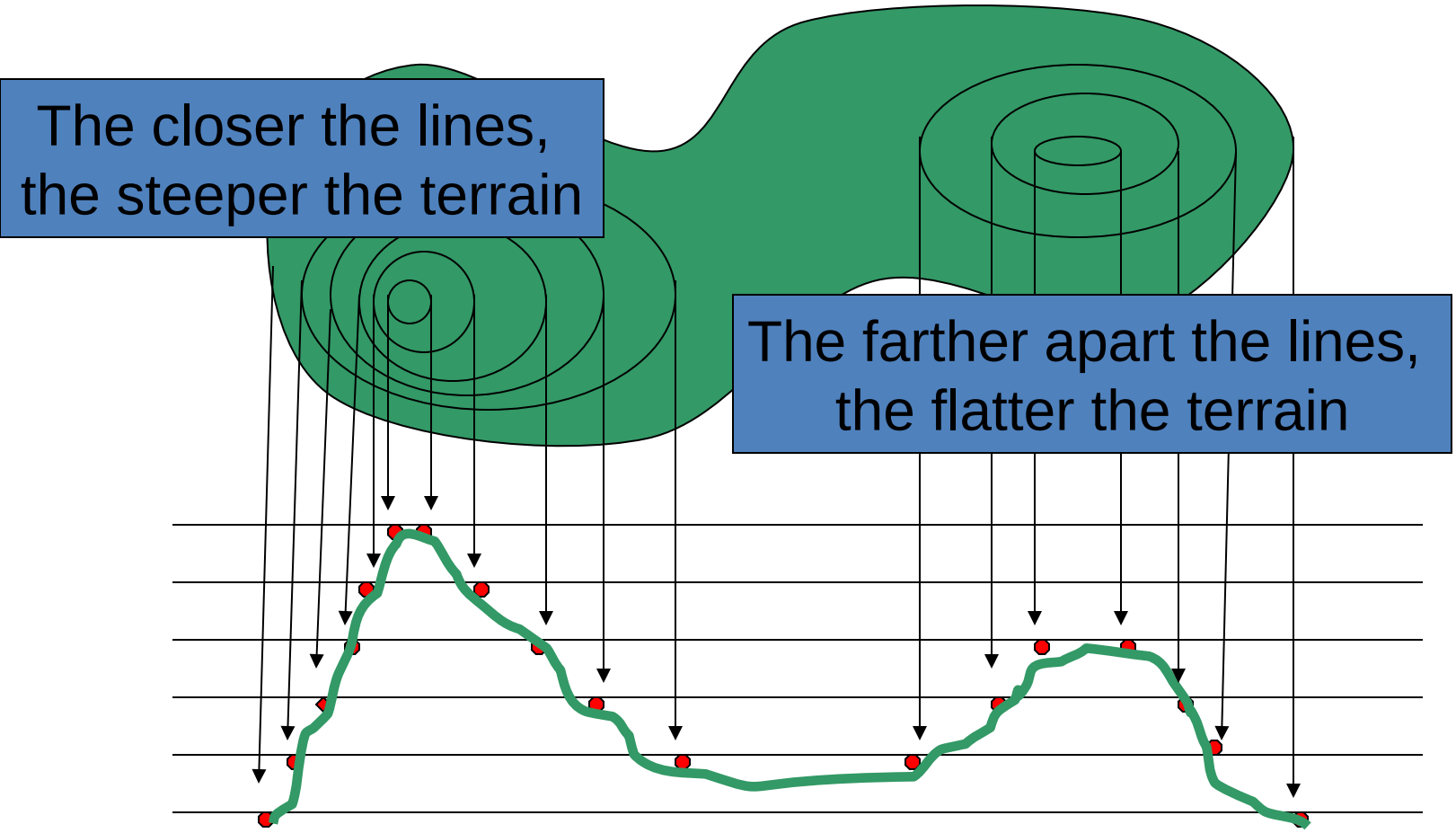
How To Make a Profile

Listen Carefully!!!!

- **Step 4:** take your sheet of paper and plot your elevation points on a graph
- **Step 5:** Draw a line through your points



Changing from top to side



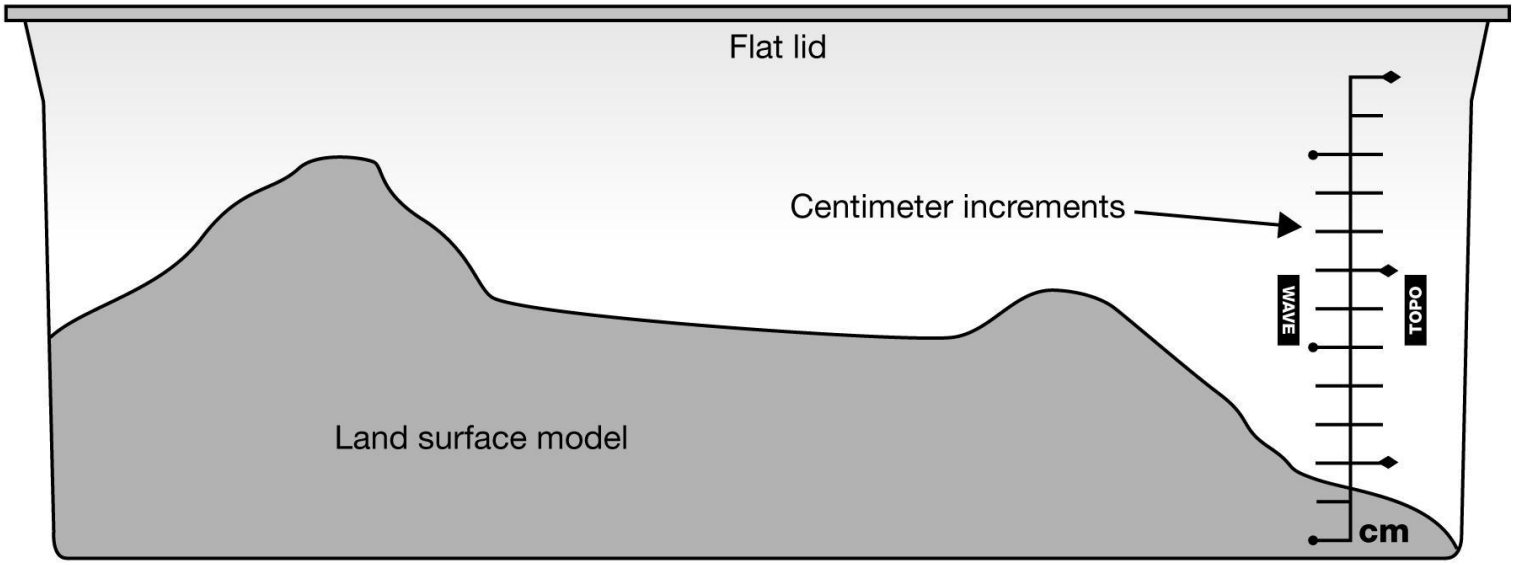
Practice Drawing a Profile

Creating a Topographic Map and Profile of a Volcano

- Thanks to CPO Science for making slides demonstrating the lab

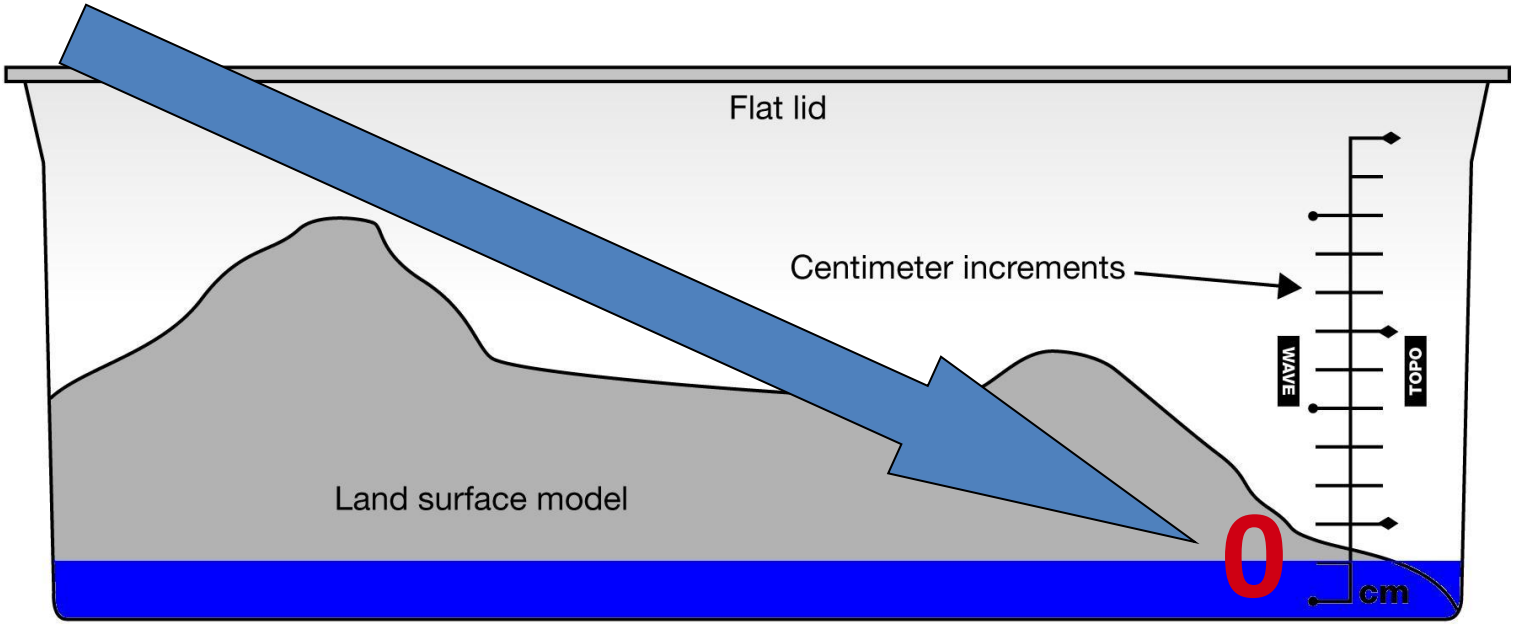
Making a topographic map- Using the GeoBox

- The GeoBox has a sticker on the side.
- Each mark on this sticker represents one centimeter.
- Pour water into the GeoBox up to the first centimeter line.

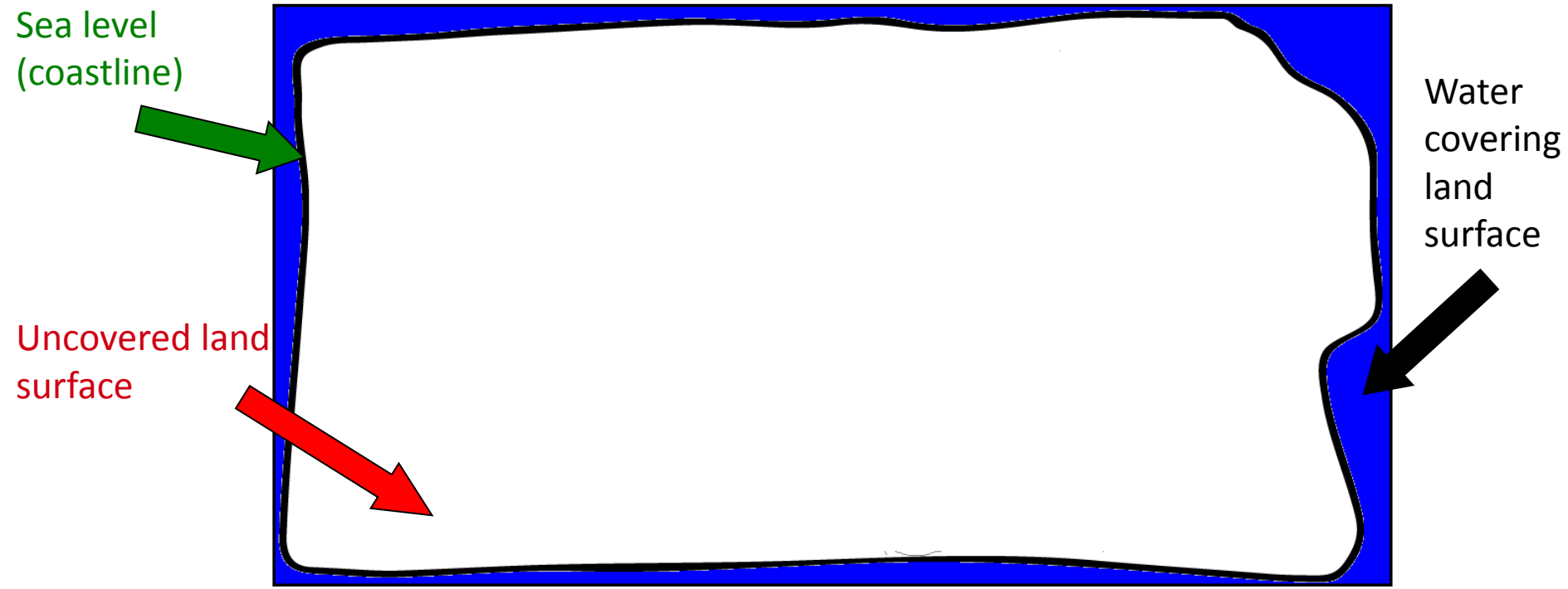


Making a topographic map- Using the GeoBox

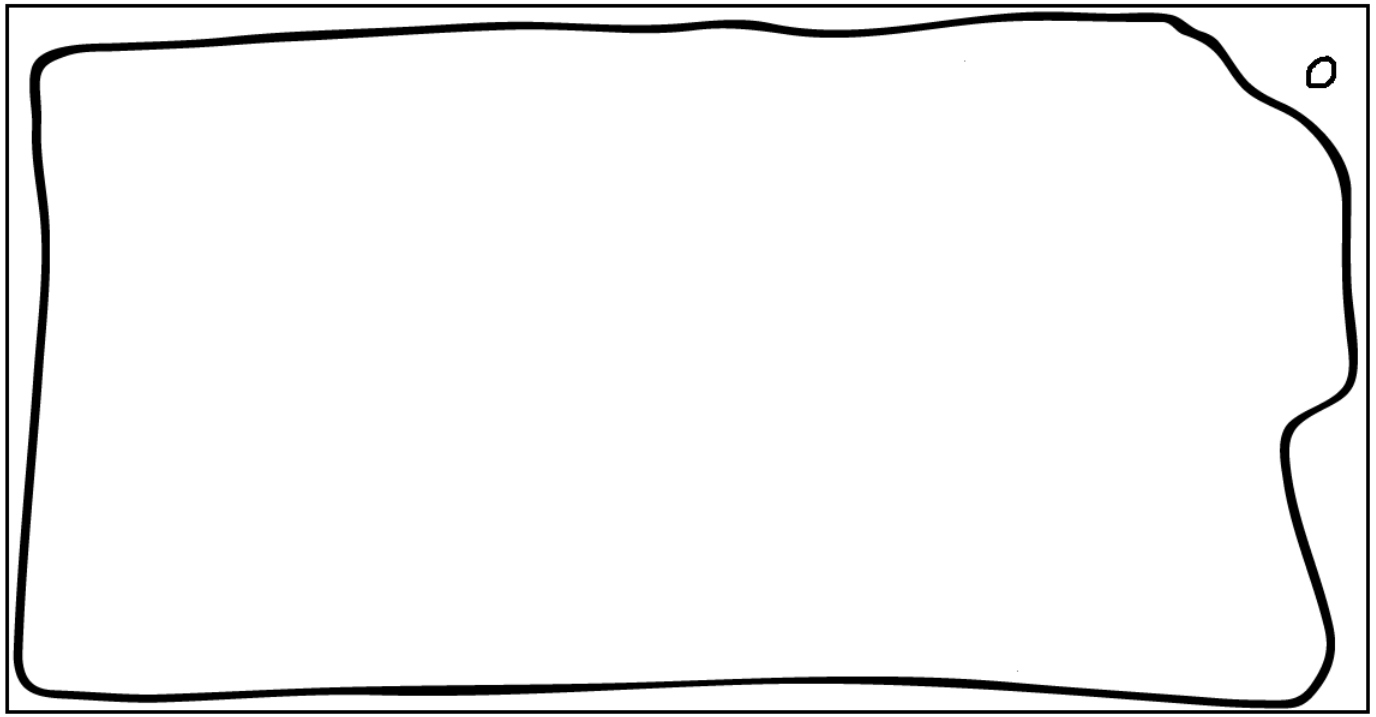
- The GeoBox has a sticker on the side.
- Each mark on this sticker represents one centimeter.
- Pour water into the GeoBox up to the second line. This will be our zero mark



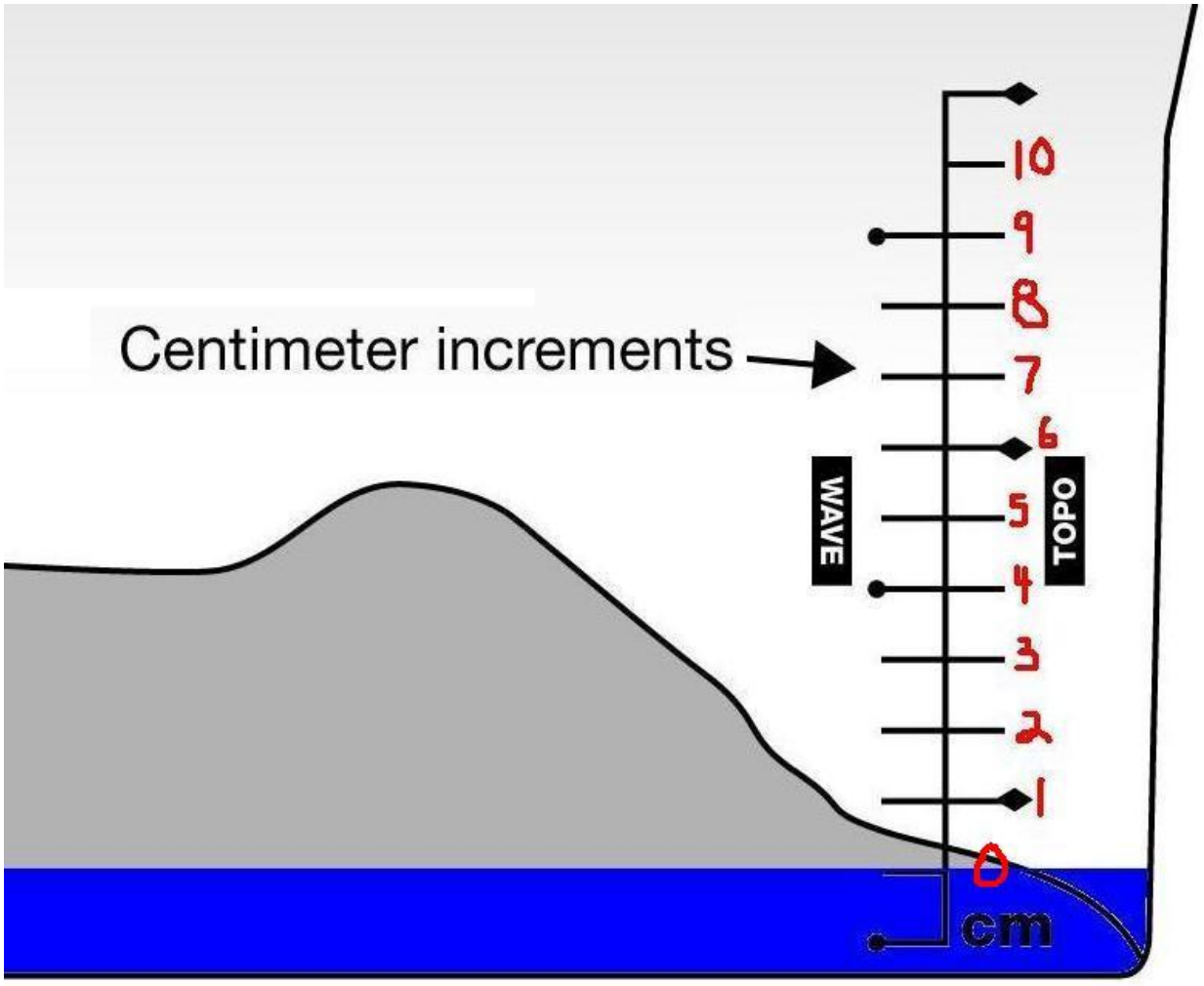
- **Place the topo lid on the GeoBox.**
- **Stand over the GeoBox so that you are looking down on the topo form.**
- **With the overhead projector marker, outline the perimeter of the land surface onto the lid.**
- **This will be considered "sea level," or the 0 meter contour line.**



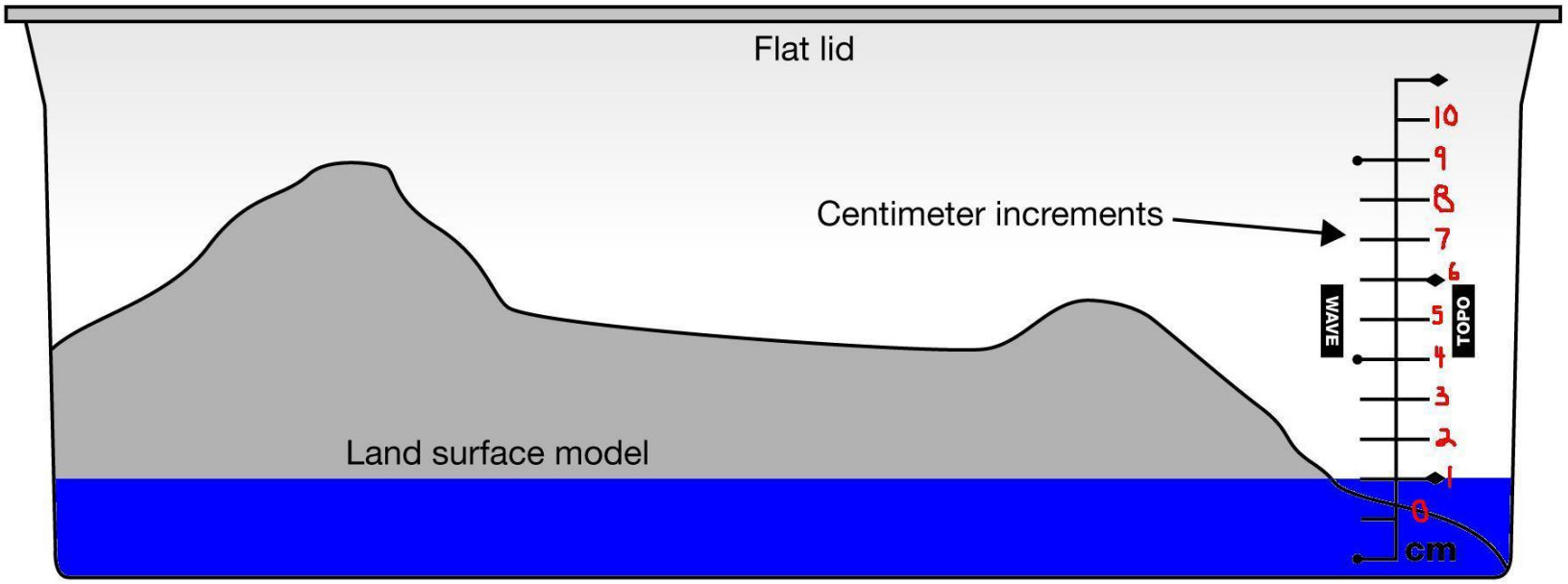
- **Label the 0 cm line**



- **Now, using you marker, number each centimeter above sea level.**

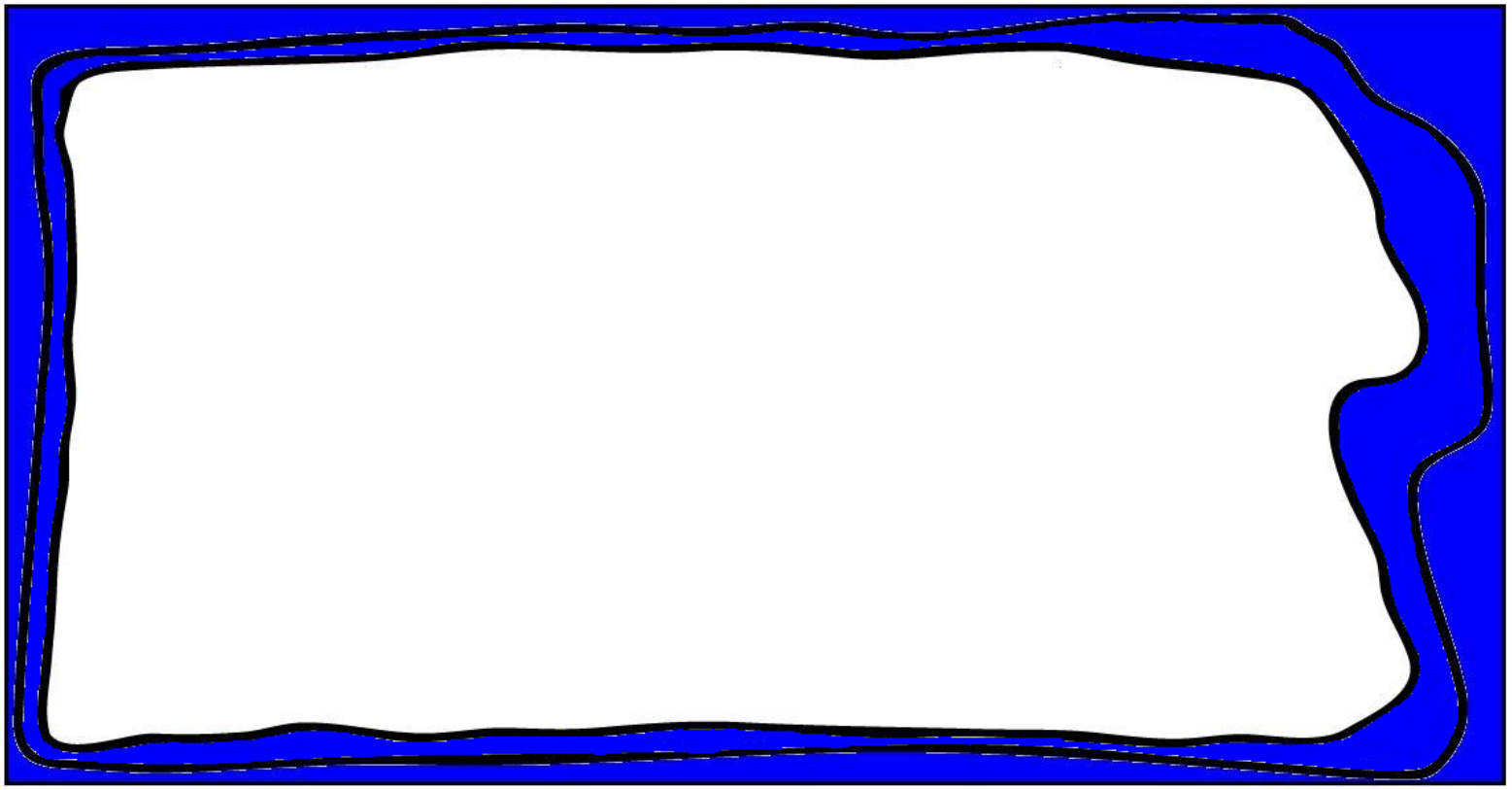


- **Remove the topo lid and add water until the water level reaches the 1-centimeter mark.**

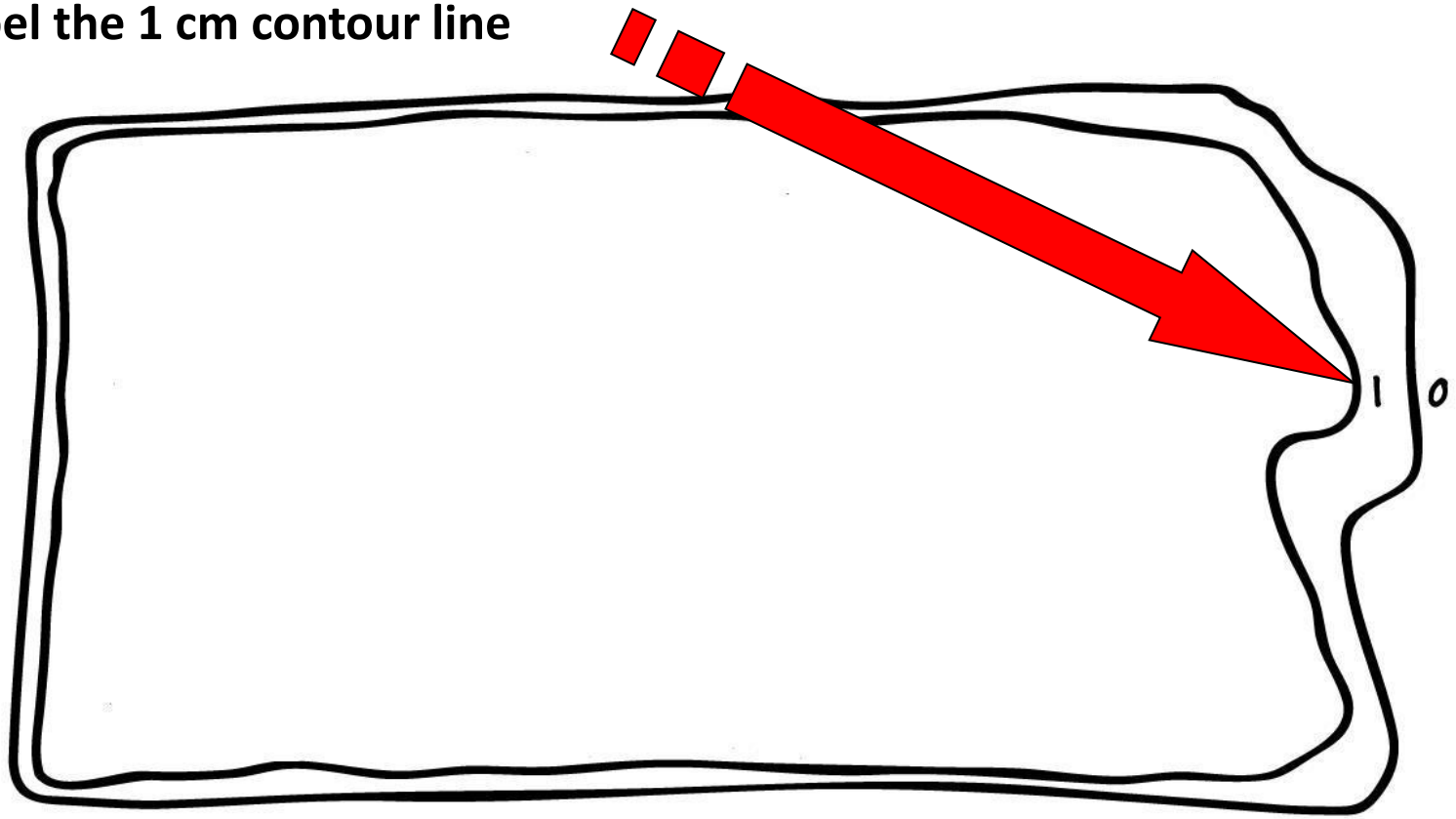


•Replace the lid. Trace the “coastline,” the line along which the water and land meet, onto the lid.

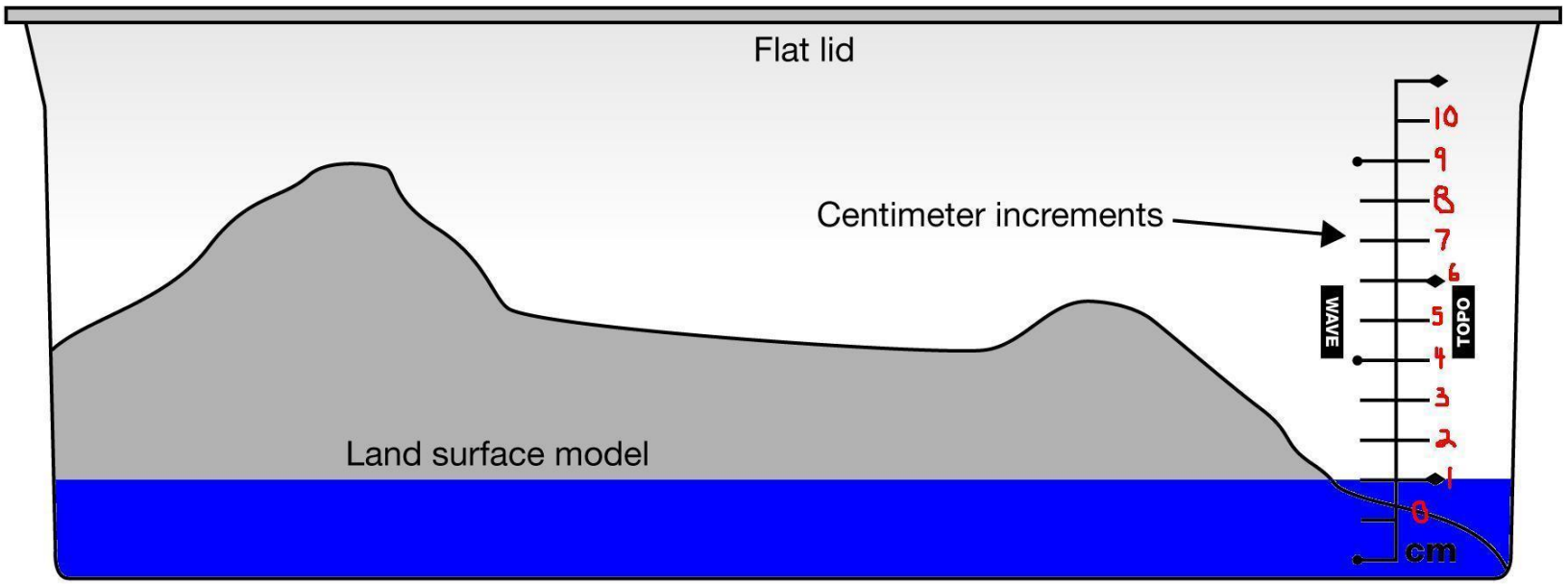
•All points on this line are 1 cm above sea level. They form a contour line, a line of equal elevation.



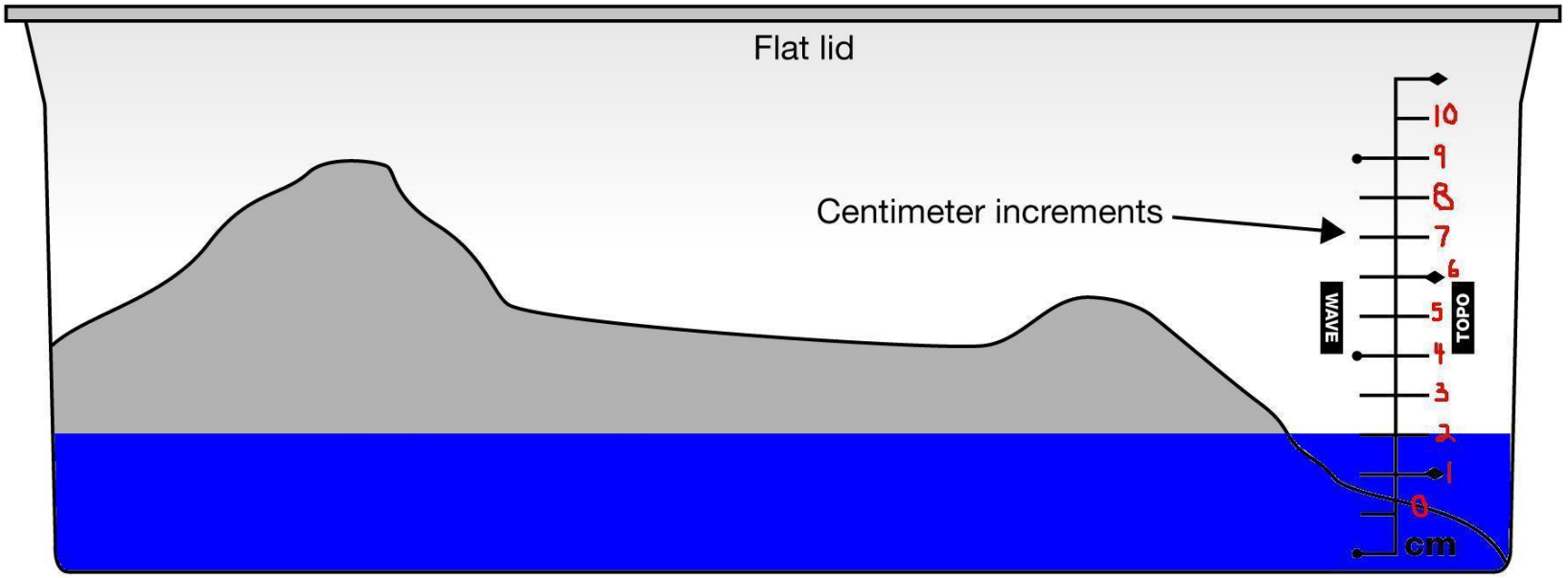
- **Replace the lid. Trace the “coastline,” the line along which the water and land meet, onto the lid.**
- **All points on this line are 1 cm above sea level. They form a contour line, a line of equal elevation.**
- **Label the 1 cm contour line**



- **Add water to the level of the 2 centimeter mark.**



- **Add water to the level of the 2 centimeter mark.**



- **Replace the lid and again, trace and label the “coastline.”**
- **All points on this line are 2 centimeters above sea level.**