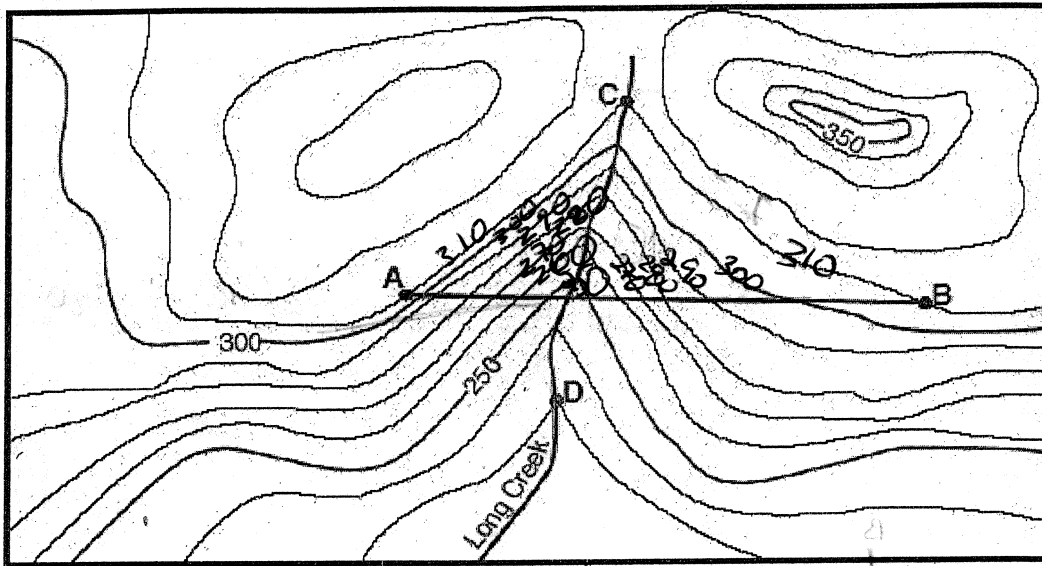


Name: \_\_\_\_\_

# How to make a profile

Unit 3: Earth's Processes

Map Scale: 1:50,000



Contour interval = 10 meters

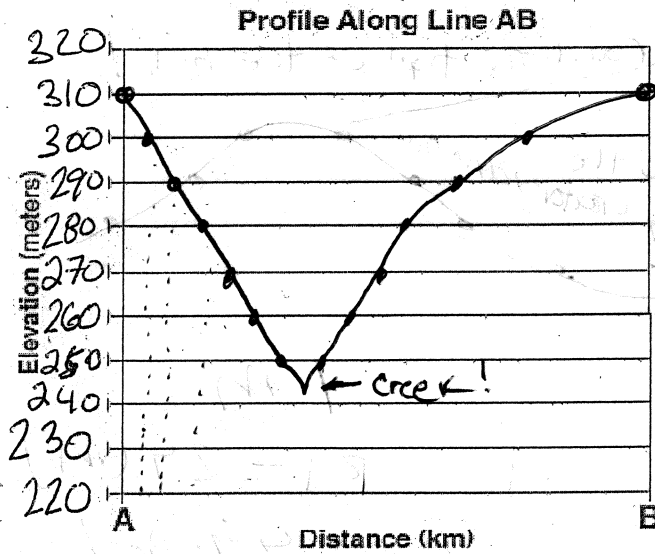
0 1 2 kilometers



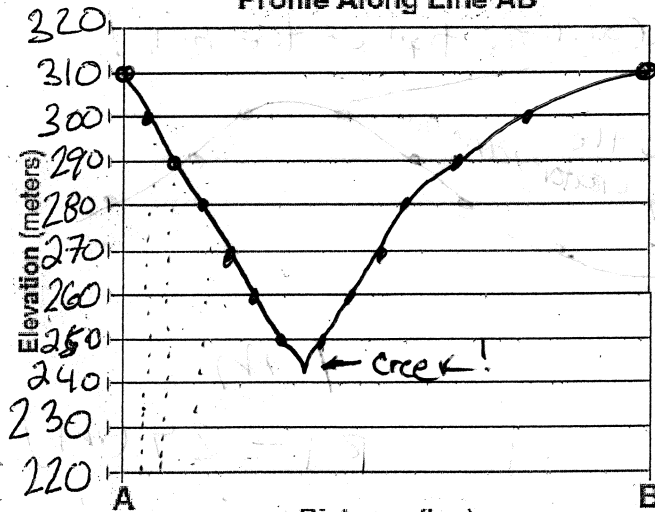
-This is what you might expect the "profile" or cross section view of line AB to look like!

-Notice how the line dips below 250m where it crosses Long Creek

-Does it make sense? SURE! There is a creek flowing through this region. Think about where it would flow on your profile. We also recognize the V shaped contour lines that indicate the direction of water flow.



Profile Along Line AB



Distance (km)

## STEPS

① Label all contour lines above line A-B!

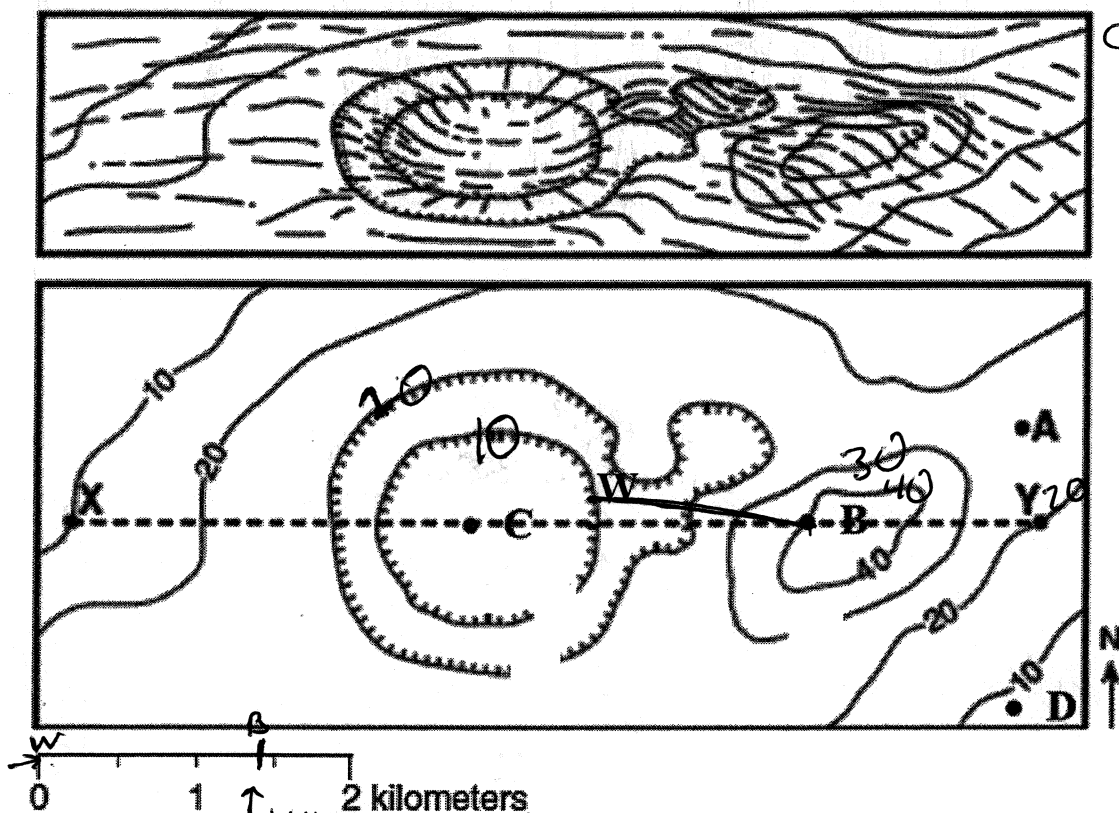
② With scrap; mark points A + B

③ Make a Tic mark along the edge of your scrap where each contour intersects your paper, label each with the elevation!

④ Draw pipe down to profile graph, plot each point + connect w/ smooth curve

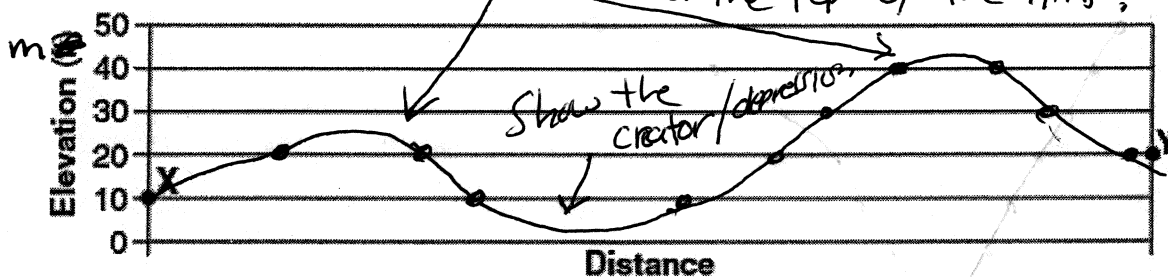
# Making a profile.

Map 1 - Creator Point (Lesson video for profiles on class page !!)



26. What is the contour interval for this map? 10 meters

Using Map 1 - Creator Point map to construct a profile between points XY. Line up point X to point X on the profile and if Y does not match it is ok.



28. What is the lowest possible elevation for point C, include units? 1 m

29. What is the possible elevation for point A, include units? 21 - 29 (m)

30. What is the highest possible elevation at the hilltop B, include units? 49 (m)

31. By using your ESRT, calculate the gradient, to the tenths place, between points W and B. Be sure to write original formula, show substitutions with units, and box in answer with units.

$$\frac{40\text{ m} - 10\text{ m}}{1.4\text{ km}} = \frac{30\text{ m}}{1.4\text{ km}} = 21.43\text{ m/km}$$

By using your ESRT, calculate the gradient, to the tenths place, between points B and Y. Be sure to write original formula, show substitutions with units, and box in answer with units.

$$\frac{40\text{ m} - 20\text{ m}}{1.5\text{ km}} = \frac{20\text{ m}}{1.5\text{ km}} = 13.33\text{ m/km}$$