EARTH SCIENCE NAME_____

Skateboard Park

Attached is a map of Skateboard Park, which has several zones to skateboard in for skaters of all levels of experience. The map is an overhead view with the contour lines drawn in. Use the map to answer the questions below:

1. Brandon is just learning how to skateboard. He wants to play it safe and stick to mostly flat ground with gentle hills. Which zone should he go to?

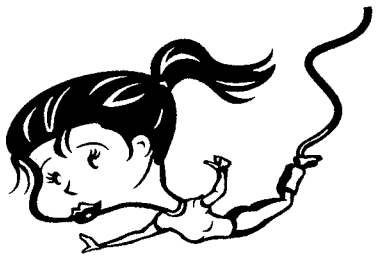
Zone_____

How do the contour lines indicate this?

2. Susie has been skateboarding since 5th grade and is confident. She wants to get a fast ride by going down a steep hill. So she heads to zone C. What side of the hill should she skate down in order to be on the steepest slope and fastest ride? The north, south, east, or west side?_____

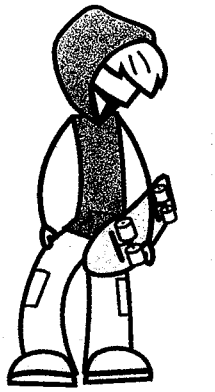
How do you know this side is steepest?

3. Jacalyn is an expert bungee jumper. What zone would she go to in order to practice? _____



Explain why this is the best zone for this activity. (What is the topography like here and why is that needed for bungee jumping?)

4. AJ is carving up the bowl in the park with his board. Which zone is he in that resembles the contours of an empty pool? (An empty pool is in the shape of a bowl.)



ZONE_____

On the map, what indicates that this zone is a depression?

5. What is the contour interval on this map?_____ feet

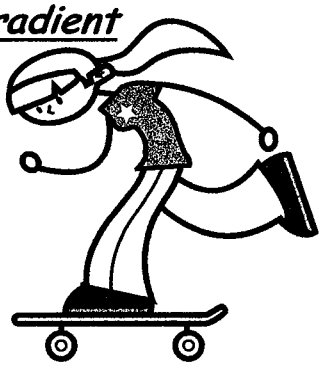
6. What zone in the park should have a guardrail to prevent skateboarders from falling down it to their certain doom!

Zone_____

If a person falls down from the top to the bottom of this zone, what is the maximum number of feet they will fall?_____

7. What is the maximum depth of the empty pool from question #4?_____

8. Livia is "grinding the rail" in zone C from point X to point Y. If this distance is $\frac{1}{4}$ of a mile (0.25 miles), what is the ***gradient*** between X and Y:

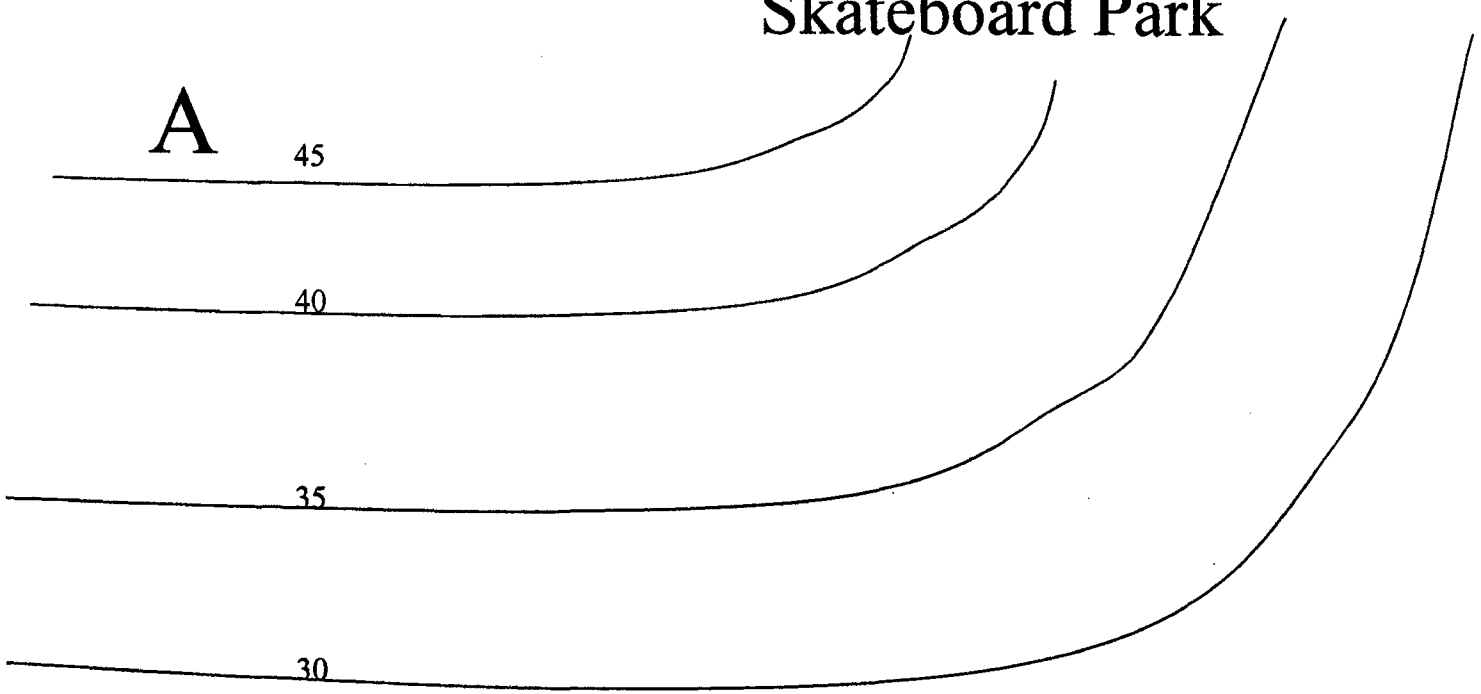


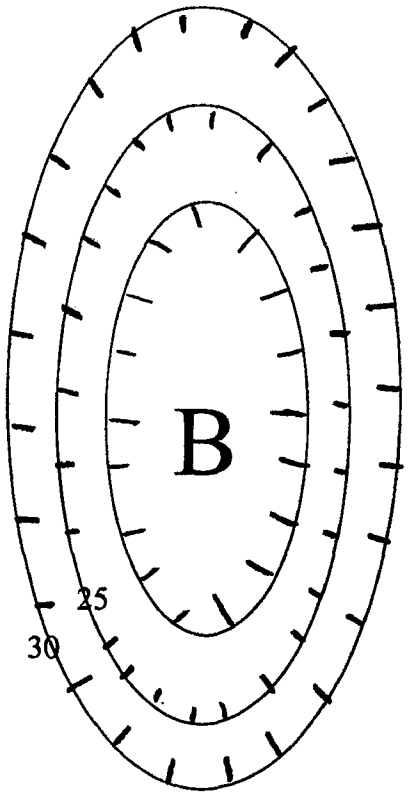
a. Write the formula for gradient:

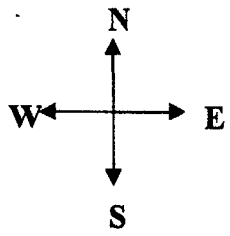
b. Show work here:

c. Write the final answer here with correct units! _____

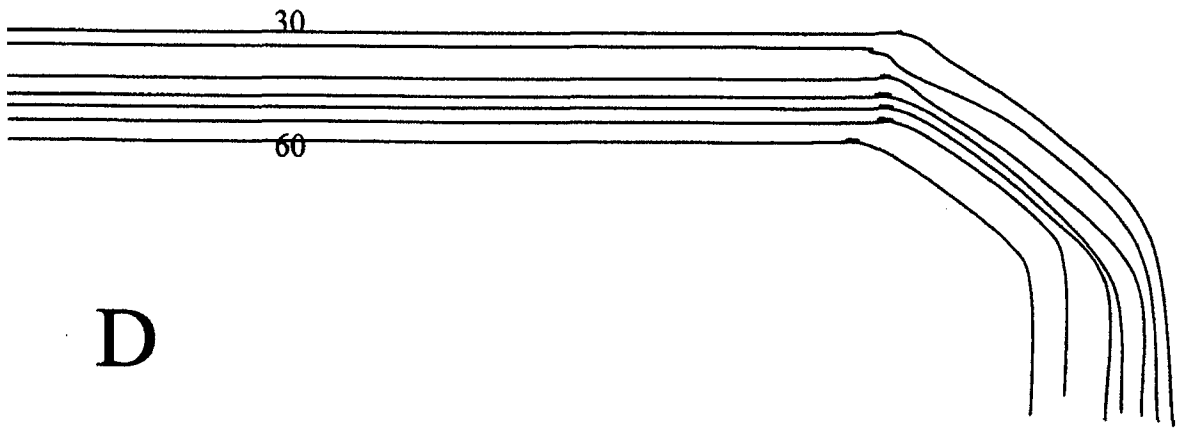
Skateboard Park



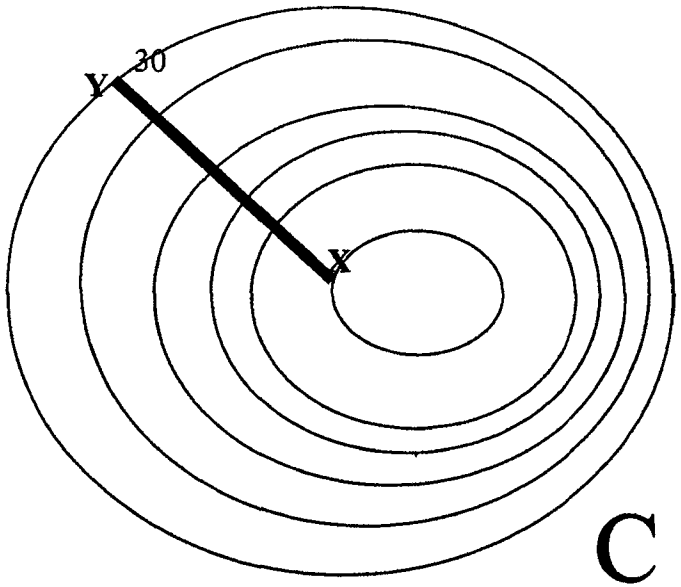




Numbers are in feet



D



C

EARTH SCIENCE NAME_____

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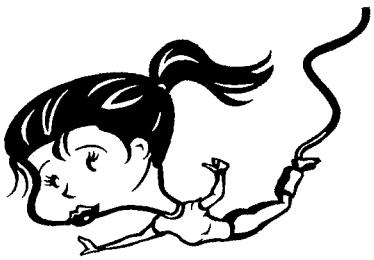

Explain why this is the best zone for this activity. (What is the topography like here and why is that needed for bungee jumping?)

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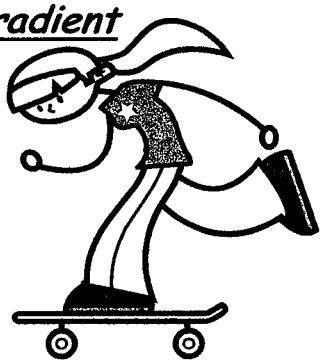


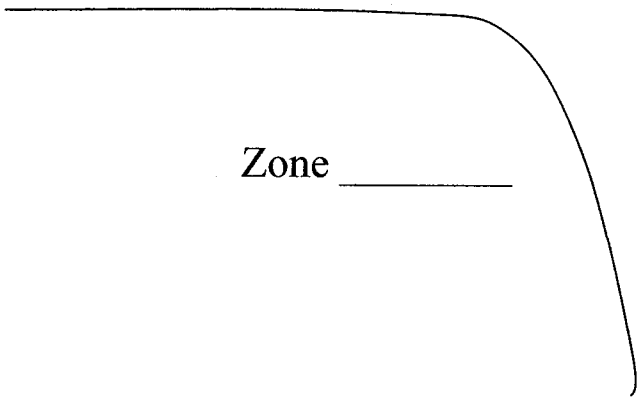
a. Write the formula for gradient:

b. Show work here:

c. Write the final answer here with correct units! _____

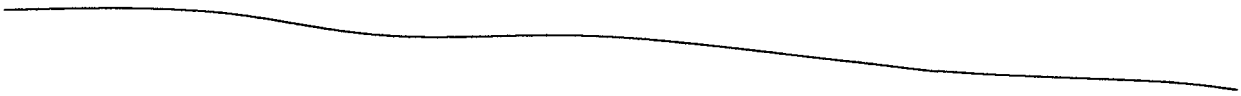
9. Pictured below are the **side views** of the different zones in Skateboard Park. Write the ZONE that each diagram represents in the space provided.

#1



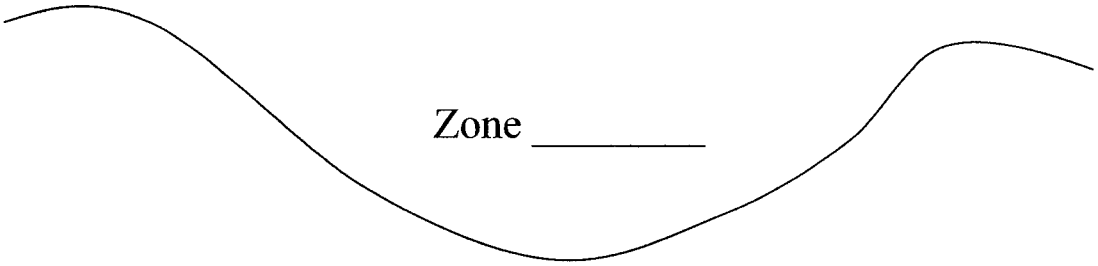
Zone _____

#2



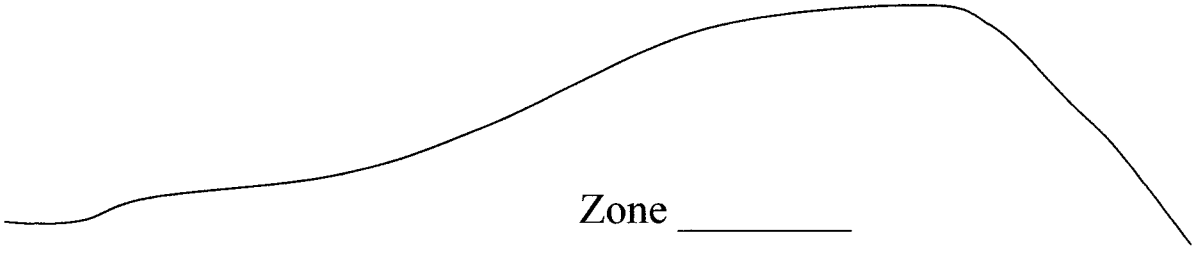
Zone _____

#3



Zone _____

#4.

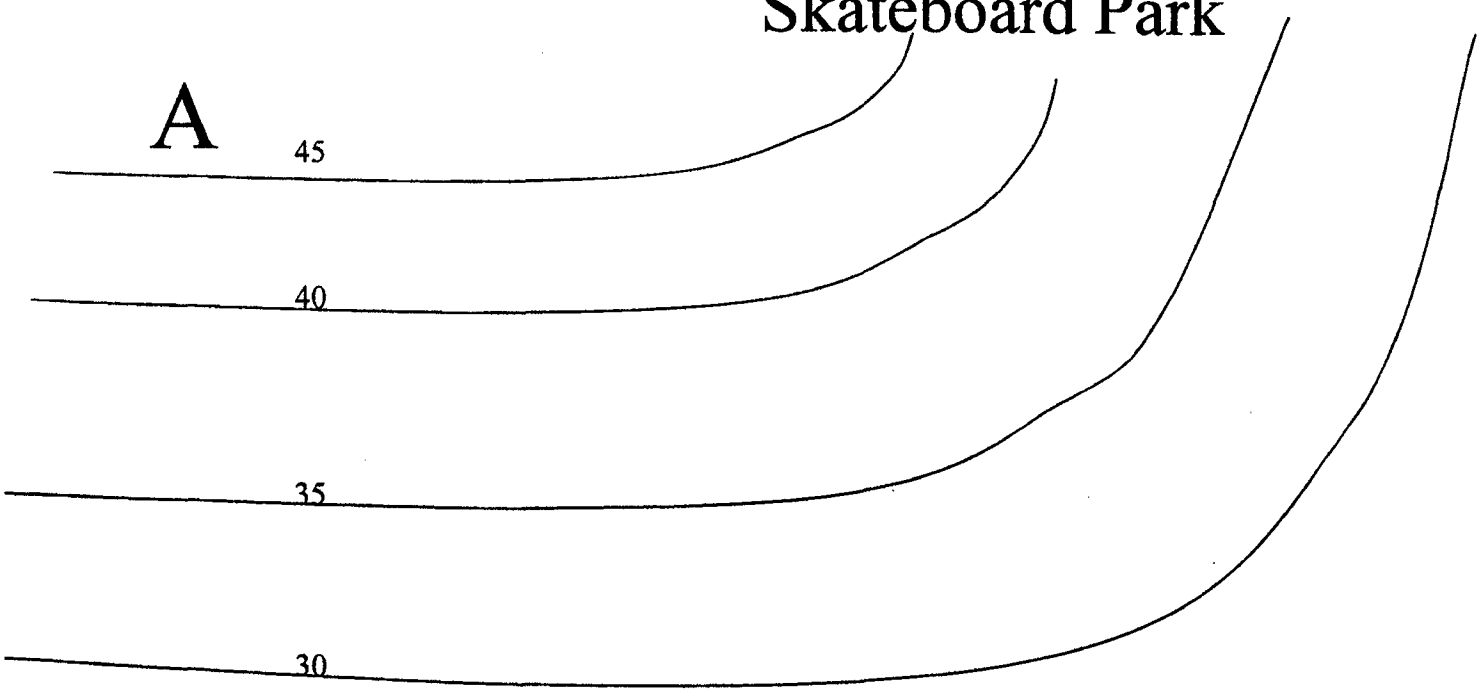


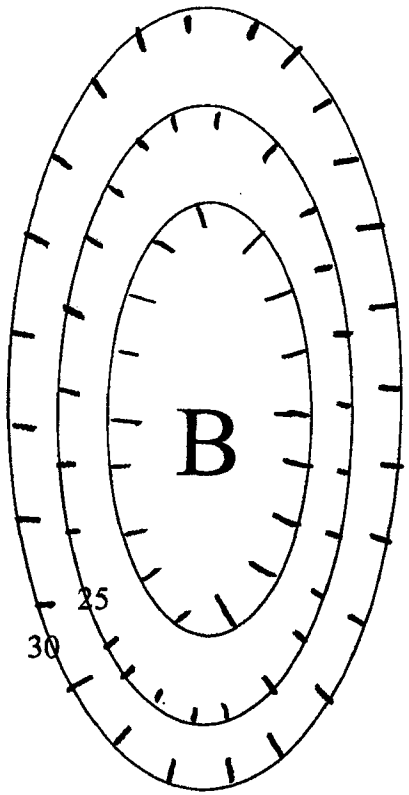
Zone _____

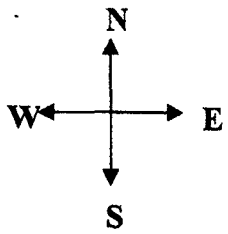
10. Write the appropriate name of the zone next to each diagram above. Select from the names below:

Rocksteady Flats, Breakneck Cliff, Radical Hill, Red Devil's Bowl

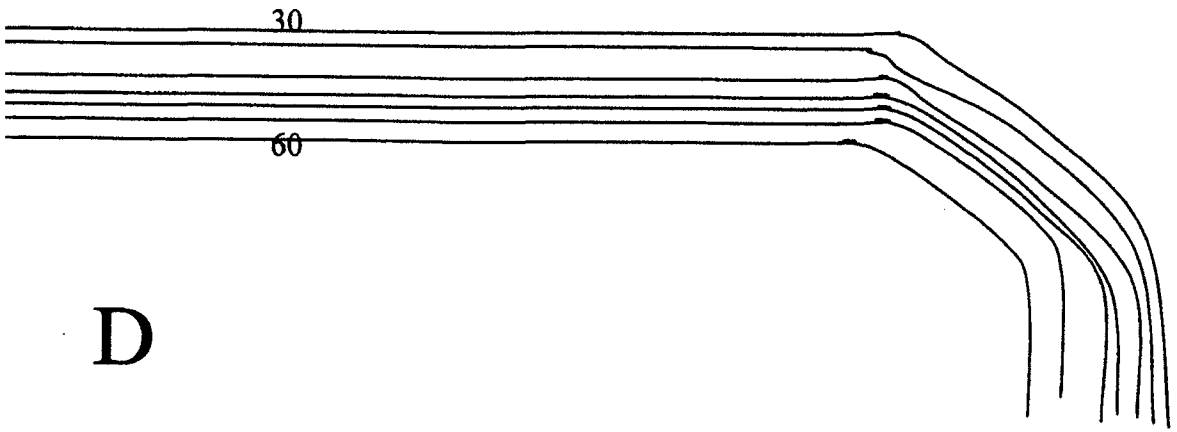
Skateboard Park



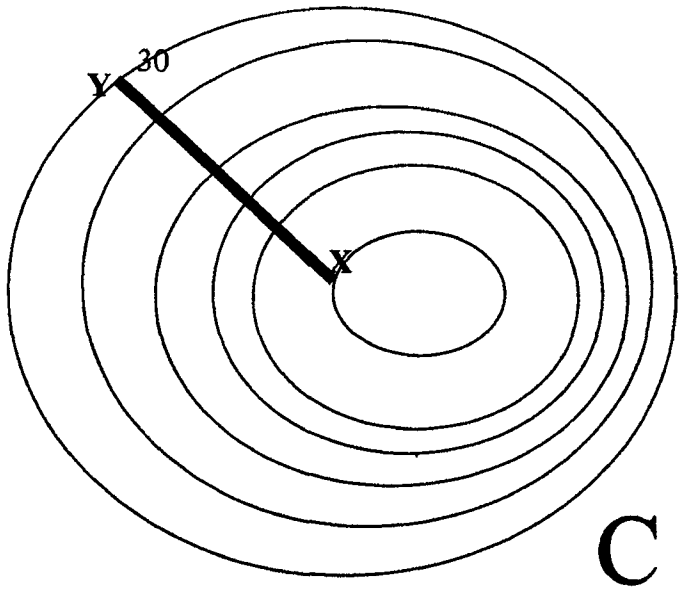




Numbers are in feet



D



C