Water Depths (feet)


1. Using the grid on the bottom left of this page, construct a profile along line $A B$.
2. On the map, draw in the 10,20 , and 30 foot contour lines.
3. Calculate the gradient between points $X$ and $Y$. (Show work)
4. Calculate the gradient between points $X$ and A. (Show work)
5. Calculate the gradient between points $Y$ and B. (Show work)

6. On the map, draw in the 50,100 , and 150 foot isolines.
7. Calculate the groundwater pollution gradient between points $X$ and $Y$. (Show work)
8. Around what object is the most intense groundwater pollution found?
9. How many meters must you walk to get from location A on the dock to location B in the parking lot?
10. Will the groundwater pollution travel more towards Lake Martin or more towards the Parking lot? Explain your answer.

11. Using the grid on the bottom left of this page, construct a profile along line $A B$.
12. What direction is Fish Creek flowing? Give two explanations as to how you know this.
13. Calculate the gradient between points C and D. (Show work)
14. What is the highest possible elevation of point $X$ ?
15. Describe which side of Rock mountain has the steepest slope and explain how you can tell this by looking at the map.


Profile Along Line DE


1. Using the grid on the bottom left of this page, construct a profile along line DE.
2. Calculate the gradient between points B and C. (Show work)
3. What direction is Copper Creek flowing?
4. What is the elevation of point $A$ ?
5. What is the highest possible elevation of the island in the NW corner of the map?
6. What is a possible elevation of the source of Amethyst River?
7. Is Copper Creek flowing faster between points M and N or points K and L ? Explain how you can tell.

8. Using the grid on the bottom left of this page, construct a profile along line AB.
9. Calculate the gradient between points C and D. (Show work)
10. What direction is Long Creek flowing? Explain how you can tell.
11. What is a possible elevation of point A? Explain how you can tell.
12. Which side of the creek has a steeper slope? How can you tell?

13. Calculate the gradient between points B and C. (Show work)
14. What are the coordinates of point $A$ ?
15. What are the coordinates of point $B$ ?
16. What are the coordinates of point $C$ ?
