

## RATTLE SNAKE RAPIDS

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1. Measure a distance on the ground along the "river." This could be between two fence posts, or any other spot you choose. Measure this distance in feet or meters (your choice), make sure to include units in your answer. (You could approximate distance by stepping it off, figure out how long your walking stride is and then count the steps between two points).

Area measured \_\_\_\_\_ Distance \_\_\_\_\_

2. Estimate the distance across the channel at this point and how deep you think the channel is:

Distance across \_\_\_\_\_ How deep \_\_\_\_\_

3. Calculate the volume of water in this area (length x width x depth)

Volume = \_\_\_\_\_

4. Time one inner tube traveling your measured distance. Record the time. Repeat for two more tubes and determine an average time.

Tube #1 time \_\_\_\_\_ Tube #2 time \_\_\_\_\_ Tube #3 time \_\_\_\_\_

Average time \_\_\_\_\_ (Add the 3 times then divide by 3)

5. Calculate the volume flow rate: Volume/Average Time

Volume Flow Rate of river channel = \_\_\_\_\_

6. Now get on the ride and time yourself from the beginning to end. (Where you stop to go up the ramp) *Careful you don't get this workbook soaked!*

Time for entire ride in seconds \_\_\_\_\_

7. Calculate how many cubic feet or cubic meters of water are pumped around the river channel during your ride. (Flow rate x seconds for ride)

Change this to ft<sup>3</sup>/min \_\_\_\_\_ (divide by 60)  
or m<sup>3</sup>/min \_\_\_\_\_