

GO WITH THE FLOW

SUPPLEMENTAL WORKSHEET FOR STUDENTS

Consider a water treatment plant that uses cylindrical pipes:

A treatment plant has a pipe that is 1111 ft.* long and 36 inches in diameter. The flow rate in the pipe is 20 million gallons per day.

a) How long will it take for the fluid to flow from one end of the pipe to the other?

b) What is the velocity in the pipe in feet per second?

* For reference, a football field is 360 ft.long, so this pipe is approx the length of 3 football fields