

Physics 10154 - Quiz 11B

For the pipe shown below, the radius of the opening at the bottom, $r_1 = 8.70$ mm. The radius of the opening at the top is $r_2 = 13.4$ mm. The height difference between the two parts of the pipe is $h = 4.50$ meters. Both ends of the pipe are open to the air. Water flows into the lower part of the pipe with a speed of 23.0 m/s.

- A 50.0 gallon container acts as a reservoir for the water flowing into the bottom part of the pipe. If water is flowing into the bottom pipe with a speed of 23.0 m/s, how long does it take to drain that 50.0 gallon reservoir?
- With what speed does water emerge from the upper end of the pipe?

