

September 16, 2013

NAME _____

Fluids-ID _____

Quiz 2.

A large, open tank contains water and is connected to a 6-ft-diameter conduit as shown the Figure. A circular plug is used to seal the conduit. (Hints: $I_{xc} = \pi R^4/4$, $\gamma = 62.4 \text{ lb/ft}^3$)

(a) Determine the magnitude of the force of the water (F_R) on the plug. (+4 points)

(b) Determine the location (y_R) and direction of the force of the water on the plug. (+3 points)

Note: Attendance (+2 points), Format (+1 points)

