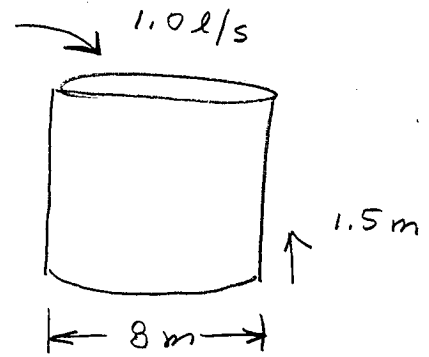
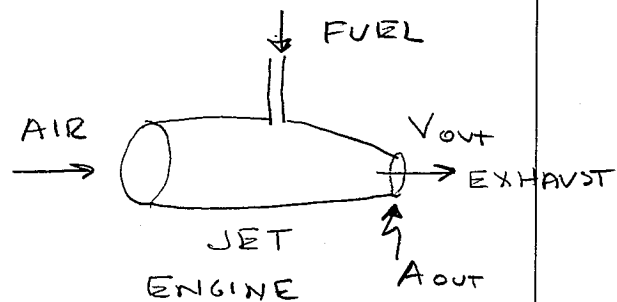


1. GIVEN: 8-m-dia.
pool fills at rate of
1.0 l/s

FIND: Time to fill
1.5-m deep



2. GIVEN: At cruise conditions, $\dot{m}_{fuel} = 0.60 \text{ lbm/s}$, $\dot{m}_{air} = 65 \text{ lbm/s}$. $V_{out} = 1500 \text{ ft/s}$ relative to engine. $A_{out} = 3.5 \text{ ft}^2$



FIND: ρ OF EXHAUST

3. GIVEN:

Uniform velocity water enters 3-ft.-wide channel at depth of 0.75 ft. Downstream, depth = 1.0 ft and velocity profile given as

$$u = 4y - 2y^2$$

FIND: V

