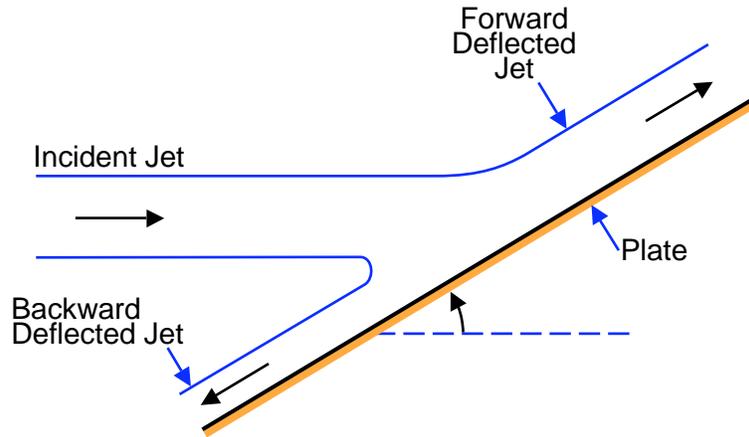


Problem 220G

An irrotational jet of incompressible, inviscid fluid strikes a flat plate inclined at an angle, θ , to the jet. The jet breaks into two streams as shown in the figure:



If the fluid is frictionless (inviscid) what is the ratio of the flow rate in the forward deflected jet to the flow rate in the incident jet. Assume that far from the impact point the pressure in all jets is atmospheric. Neglect gravity.