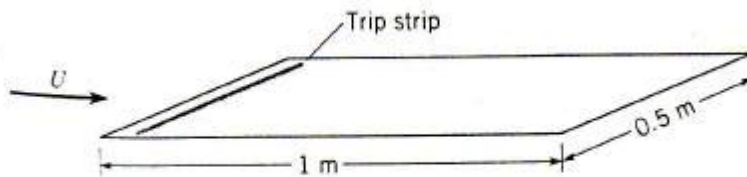**9.66** A flat plate is oriented parallel to a 15 m/s air flow at 20°C and atmospheric pressure. The plate is 1 m long in the flow direction and 0.5 m wide. On one side of the plate, the boundary layer is tripped at the leading edge and on the other side there is no tripping device. Find the total drag force on the plate.

PROBLEM 9.66

Note that tripped boundary layer is turbulent and that which is not tripped is transitional.