"ME-5427 Introduction to Turbomachinery"
"Zhaoyi Jiang(.1364)"

"HW1 P2"

"Exit"
p=1.5[bar]
t=195[c]
v2=350*cos(70)
rho=density(steam,p=p,t=t)
A=(40-2.1)*25
m_dot=rho*v2*A*convert(mm^2,m^2)

SOLUTION
Unit Settings: SI C bar kJ mass deg

A = 947.5 [mm^2] $\dot{m}$ = 0.07939 [kg/s] p = 1.5 [bar]

ρ = 0.6999 [kg/m^3] t = 195 [C]   v2 = 119.7 [m/s]

No unit problems were detected.