EES Ver. 10.444: #0301: for use by Mechanical and Aerospace Engineering, Ohio State University - Columbus, OH

## "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<sup>2</sup>]  $\rho$  = 0.6999 [kg/m<sup>3</sup>]  $\dot{m}$  = 0.07939 [kg/s] t = 195 [C] p = 1.5 [bar] v2 = 119.7 [m/s]

No unit problems were detected.