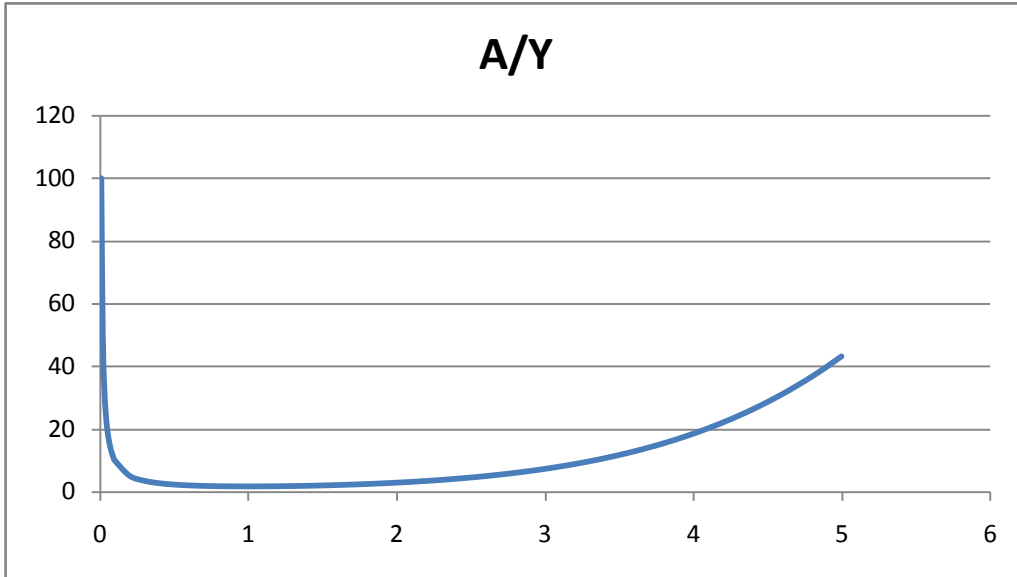


Problem 1

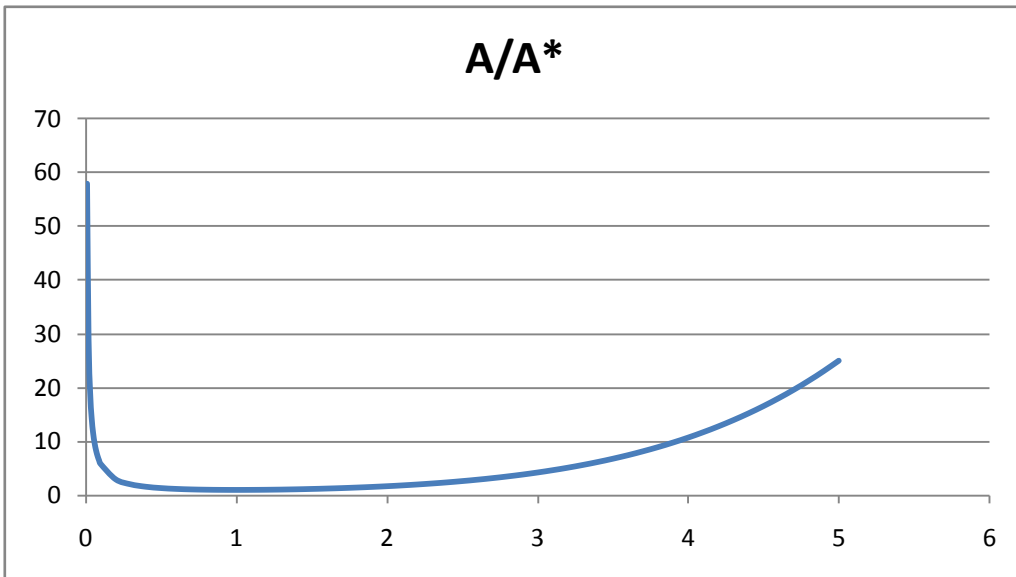


Problem 2

M=1

A/Y 1.728

C1 1.46



Problem 3

m^* 1.6 lbm/sec 0.726 kg/s
To 525 R
Po 78 psi
Ae 1.05 in²

$$A^* = m^* T_o^{0.5} / 0.5317 P_o$$

A* 0.883972 in² 0.00057 m²

Ae/A* 1.187821

M **0.6** *from table B2

P/Po 0.784

T/To 0.93284

P **61.152 psi** **421628 Pa**

T 489.741 R

V **650.8903 ft/sec** **198 m/s**

m* **1.900513 lbm/sec** **0.862 kg/sec**