

Download File PDF Solution Manual For Introduction To Engineering Thermodynamics

#Jenny



Finally I get this ebook, thanks for all these I can get now!

#Rio



Cool! I'am really happy

#Markus Jensen



I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

#Hun Tsu



wtf this great ebook for free?!

#Che Salsa



My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler



so many fake sites. this is the first one which worked! Many thanks

[Download PDF version of :](#)
Solution Manual For Introduction To Engineering Thermodynamics

Chapter 1 - Section A - Mathcad Solutions

1.4 The equation that relates deg F to deg C is $(F) = 1.8 (C) + 32$. Solve this equation by setting $(F) = 100$.

Given solve for: $C = 0$

Given $C = 1.8 C + 32$ **finds $C = -17$** Ans.

1.5 By definition: $P = \frac{F}{A}$ $F = \text{mass} \cdot g$ Note: Pressures are in gauge pressure.

$P = 3000 \text{ Pa}$ **$D = 4 \text{ mm}$** **$\Delta h = \frac{4}{3} D^2$** **$A = 12.566 \text{ mm}^2$**

$F = P \cdot A$ $g = 9.807 \frac{\text{m}}{\text{s}^2}$ **$\text{mass} = \frac{F}{g}$** **$\text{mass} = 384.44 \text{ g}$** Ans.

1.6 By definition: $P = \frac{F}{A}$ $F = \text{mass} \cdot g$

$P = 300 \text{ Pa}$ **$D = 0.175 \text{ m}$** **$A = \frac{\pi}{4} D^2$** **$A = 0.0238 \text{ m}^2$**

$F = P \cdot A$ $g = 32.174 \frac{\text{ft}}{\text{sec}^2}$ **$\text{mass} = \frac{F}{g}$** **$\text{mass} = 1069.7 \text{ lb}$** Ans.

1.7 $P_{\text{abs}} = \rho \cdot g \cdot h + P_{\text{atm}}$

$\rho = 11.535 \frac{\text{lbm}}{\text{ft}^3}$ **$g = 9.832 \frac{\text{m}}{\text{s}^2}$** **$h = 56.38 \text{ m}$**

$P_{\text{atm}} = 101.798 \text{ Pa}$ **$P_{\text{abs}} = \rho \cdot g \cdot h + P_{\text{atm}}$** **$P_{\text{abs}} = 176.809 \text{ Pa}$** Ans.

1.8 $P = \rho \cdot g \cdot h + P_{\text{atm}}$

$\rho = 11.535 \frac{\text{lbm}}{\text{ft}^3}$ **$g = 32.243 \frac{\text{ft}}{\text{s}^2}$** **$h = 25.626 \text{ ft}$**

$P_{\text{atm}} = 29.366 \text{ lbf/ft}^2$ **$P_{\text{abs}} = \rho \cdot g \cdot h + P_{\text{atm}}$** **$P_{\text{abs}} = 27.22 \text{ psia}$** Ans.