

Errata

Below is a synopsis of the errors in the first print of textbook that affects calculations. These errors will be corrected in the next printing.

In the text

page 39, 12 lines from bottom.
 page 72 (Figure P2.25)
 page 81 (figure P2.53)
 page 112 (prob 3.18)

...Equation (1.3) is *positive*. Therefore
 Vertical dimension should be *1.4*
 6 mm dimension is the length of *un-deformed* geometry.

0.00	0.00
3.11	<i>1.28</i>
7.24	<i>2.96</i>
7.50	<i>3.06</i>

page 113 (prob 3.27)
 page 181 (Example 4.4)
 page 191 (prob 4.18)
 page 192 (prob 4.31)
 page 204 (prob 4.48)
 page 220 (write up above prob 4.57)
 page 232 (prob 4.89)
 page 274 (Figure 5.29)
 page 405 (Figure 6.68b)
 page 406
 page 417 (prob 6-106)
 page 663 (Figure P10.42)

$E=70 \text{ GPa}$
 The elongation...is limited to *2.0* mm
 $A = K(2L - 0.25x^2)$
 ..limited to 0.02*7* in.....
 ...The outer diameters of the two pipes are *50* mm and *70* mm.....
the force $F=20$ kN....
 ...the threads is *3.0* mm,....
 Length of segment AB should be *24* in
 replace 291N/m by 109.9 N/m and 263N/m by 83.3 N/m
 Eq. (E7) $q_1 = 3.115s - 22.06s^2$; Eq. (E8) $q_2 = 0.243 - 1.517s$
is three times *smaller* than the....
 Vertical dimension should be *1.0 m* and not 1.6 m

Formula sheet

$$M_2 = M_1 + \int_{x_1}^{x_2} V dx$$

In answers

prob 1.69 $L=10.4$ in
 prob 1.77 The arrow direction with 150 needs to be *reversed*.
 prob 2.7 $\epsilon_B = -150 \mu\text{in/in}$
 prob 2.19 $\epsilon_B = 400 \mu\text{mm/mm}$
 prob 3.4(a) $E=150$ GPa
 prob 4.18 is *4.19*
 prob 4.43 $y_N = 32.75$ mm
 prob 4.45 $h=3.03$ in
 prob 4.82 $d=1.3$ in
 prob 5.63 $\tau_{max} = 80T/(9\pi d^3)$
 prob 5.56 $T = 200.5$ in - kips

prob 6.43 $\sigma_A = 6.67 \text{ ksi (C)}$

prob 6.50 $M_z = +1.5(72-x)^2 \text{ in-kips}$

prob 6.54.... $M_z = [wLx - wL^2]$ in-kips $M_z = [wLx - \frac{w}{2}(x-L)^2 - wL^2]$ in-kips

prob 7.11 $v(x) = \begin{cases} (wLx/48EI)(2x^2 - 7L^2) & 0 \leq x \leq L \\ (w/EI)(2Lx^3 - 7L^3x)/48 - (w/24EI)(x-L)^4 & L \leq x \leq 2L \end{cases}$

prob 8.60 $P_{\max} = 30.6 \text{ kN}$

prob 9.9 $\gamma_{nt} = 385.67\mu$

prob 9.15 $\varepsilon_{nn} = -295.4\mu$ $\varepsilon_{tt} = -295.4\mu$ $\gamma_{nt} = -104.2\mu$

prob 9.40 $\varepsilon_{xx} = 1027\mu$ $\varepsilon_{yy} = 23\mu$ $\gamma_{xy} = -1037\mu$

prob 9.47 $\varepsilon_2 = -125\mu$ $\varepsilon_3 = -214.3\mu$ $\gamma_{\max} = 982.1\mu$

prob 9.49.... $\varepsilon_2 = -803.6\mu$ $\varepsilon_3 = 0$ $\gamma_{\max} = 1786\mu$

prob 10.1 $\sigma_{nn} = 4.6 \text{ ksi (C)}$; $\tau_{nt} = -16.4 \text{ ksi}$

prob 10.36 $\tau_{nt} = 13180 \text{ psi}$

prob 10.75(b) $P_{\max} = 5.75 \text{ kN}$

prob 11.9 $P_{cr} = 215.4 \text{ kip}$