

Dynamics:

Chapters 12

Problem 12-20	2nd line of problem statement should read “velocity” not “speed”	p. 17
Problem 12-37	Change “ $t < 2v_0/g$ ” to “ $t < 2v_0/g$ ”	p. 18
Problem 12-83	Add “ k ,” after “where $_, c, h$, and $b \dots$ ”	p. 47
Problem F12-28	Add “and $v = 1 \text{ m/s}$ ” before “ $s = 0$ ”	p. 60
Problem 12-182/183	Art: delete the dimension “0.5 m”	p. 79
Problem 12-183	Change “which is defined by” to “with such that”	p. 79
Answer F12-25	Change “ $v_A = 40.4 \text{ ft/s}$ ” to “ $v_A = 40.0 \text{ ft/s}$ ” [last line]	p. 682
Answer 12-82	Change “ $\Delta r = 6.71 \text{ km}$ ” to “ $\Delta r = 3.61 \text{ km}$ ” Change “ $v_{\text{avg}} = 4.86 \text{ m/s}$ ” to “ $v_{\text{avg}} = 2.61 \text{ m/s}$ ”	p. 700
Answer 12-179	Replace both answers with “ $\dot{r} = -250 \text{ mm/s}$ ” and “ $\ddot{r} = -2165 \text{ mm/s}^2$ ”	p. 702
ISM: Answer 12-179	Omit last 4 lines of ISM solution, revise last two lines to read: “ $\dot{r} _{\theta=30^\circ} = v_r = -100 \sin 30^\circ(5) = -250 \text{ mm/s}$ “ $\ddot{r} _{\theta=30^\circ} = a_r = -100[0 + \cos 30^\circ(5^2)] = -2165.06 \text{ mm/s}^2 = -2.17 \text{ m/s}^2$ ”	
ISM: Answer 12-180	Omit last 4 lines of ISM solution, revise last two lines to read: “ $\dot{r} _{\theta=30^\circ} = v_r = -100 \sin 30^\circ(5) = -250 \text{ mm/s}$ “ $\ddot{r} _{\theta=30^\circ} = a_r = -100[\sin 30^\circ(6) + \cos 30^\circ(5^2)] = -2465.06 \text{ mm/s}^2 = -2.47 \text{ m/s}^2$ ”	

Chapter 13

Problem 13-114/115	Art: change to “ $\theta = 3 \text{ rad/s}$ ”	p. 154
Problem 13-134	Delete “(c) elliptical” add “(c) hyperbolic”	p. 165
Problem 13-135	Change “ A ” to “ B ” Art: remove A and “5 Mm” dimension	p. 165
Answer 13-97	Replace all 4 answers with: “ $a_r = -7.128 \text{ ft/s}^2$ ” “ $a_\theta = -3.6536 \text{ ft/s}^2$ ” “ $F = 0.0108 \text{ lb}$ ” “ $N = 0.1917$ ”	p. 705
Answer 13-98	Change “ $F = 7.71 \text{ N}$ ” to “ $F = 0.444 \text{ lb}$ ”	p. 705
Answer 13-135	Replace 2 lines with: “ $v_B = 8.83 \text{ km/s}$ ”	p. 706
ISM: Answer 13-97	a_θ should be found to be: $a_\theta = r\ddot{\theta} + 2\dot{r}\dot{\theta} = 0.8660(0.4) + 2(-1)(2) = -3.6536 \text{ ft/s}^2$	

and F should be given by:
 $F - 0.1917 \sin 30^\circ = (0.75/32.2)(-3.6536)$
 $F = 0.0108 \text{ lb}$ *Ans*

ISM: Answer 13-98 a_θ should be found to be:
 $a_\theta = r\ddot{\theta} + 2\dot{r}\dot{\theta} = 0.8660(0.4) + 2(-1)(2) = -3.6536 \text{ ft/s}^2$
 and F should be given by:
 $F - 0.2413 \sin 30^\circ - 0.75 \sin 60^\circ = (0.75/32.2)(-3.6536)$
 $F = 0.444 \text{ lb}$ *Ans*

ISM: Answers 13-130/132/133 The expression for period T should begin with “ π/h ” not “ $\pi/6$ ”

Chapter 14

Problem 14-54 Delete “in 15 s” / Delete last sentence
 Add “and the crate is moving at 10 ft/s.” after “is 2.5 hp” p. 198

Problem 14-106 Change “ $k_2 = 45000 \text{ lb/ft}$ ” to “ $k_2 = 4500 \text{ lb/ft}$ ” p. 216

Answer 14-13 Change “ $N_B = 1.54 \text{ ft/s}$ ” to “ $N_B = 34.64 \text{ lb}$ ” p. 706

Chapter 15

Answer 15-141 Change “ $a = 0.1$ ” to “ $a = 0.112 \text{ m/s}^2$ ”
 Delete “ $F = 3.55 \text{ kN}$ ” p. 710

Add NEW:
 Answer 15-143 “ $a = 37.5 \text{ ft/s}^2$ ” p. 710

Answer 15-145 “ $R = m(gv + v^2)$ ”
 “ $R = (20t + 2.48) \text{ lb}$ ” p. 710

Chapter 16

Problem 16-108 Change “of link AB ” to “of link BC ” p. 362

Answer 16-35 Change “ $\mathbf{a}_D \dots$ ” to “ $\mathbf{a}_D = \{-36.0\mathbf{i} + 66.6\mathbf{j} - 40.2\mathbf{k}\} \text{ m/s}^2$ ” p. 712

Chapter 18

ISM: Answer 18-68 Answer is “85.1 rad/s”

Chapter 19

Problem 19-41 Change last 2 lines to read:
 “ $\omega_2 = 2 \text{ rad/s}$ ” and “ $\omega_3 = 2.55 \text{ rad/s}$ ” p. 718

ISM: Answer 19.41 1st question answer: “2 rad/s”
 2nd question answer: “2.55 rad/s”