

Errata Fundamentals of Physics Vol I Expanded Edition

Many thanks to Sunjiv Varsani and Alan Lu for their contributions.

1. : Change “time dilatation” to “time dilation” everywhere
2. Page 5: Para 3 : “..and at time t_2 ended..”
3. Page 28, last line: $\mathbf{a}_{bg} = \mathbf{a}_{bp}$
4. Page 436, Exercise 4.9: “.. $v_{max} = \sqrt{2gh(1 + \frac{mg}{2kh})}$ ”
5. Page 447, Exercise 2.9: need to use $F = ma$, not discussed yet.
6. Page 447, Exercise 2.10: “.. point on a horizontal flywheel..”
7. Page 453 Exercise 3.22, line 6: “..keeping its energy $E = mgh + \frac{1}{2}mv^2$ constant.”
8. Page 467 Exercise 7.7 part (iii): “rod” should read “stick”
9. Page 468 Exercise 7.15: $P = (\frac{E}{c}, p)$
10. Page 469, Exercise 7.18 $\theta(t) \simeq \ln \frac{2Ft}{mc}$
11. Page 470, Exercise 7.27, line 5: $\omega = |\mathbf{k}|$
12. Page 475 Exercise 8.34 penultimate line: “complimentary” should be “complementary”
13. Page 477 Exercise 9.26, line 1: $m \rightarrow M$
14. Page 477 Exercise 9.27 line 1: $y = \pm 0.75$
15. Page 487, Exercise 1.3: (ii) $-0.5s$
16. Page 487, Exercise 1.5: $1 + \frac{3}{e}$
17. Page 487, Exercise 1.8: (iii) $\frac{(v_1 - v_2)^2}{2(v_1 + v_2)}$
18. Page 487 Exercise 1.11: (i) $1.76 \frac{m}{s^2}$ (ii) $7.92m$
19. Page 488 Exercise 2.1: (ii) $\theta = \tan^{-1}(4/3)$
20. Page 490 Exercise 3.19: Exchange (i) and (ii)
21. Page 490 Exercise 3.31: $3mg \rightarrow 3Mg$
22. Page 492, Exercise 5.21: 1.39s
23. Page 492, Exercise 6.4: (ii) $(5/12)Ma^2$
24. Page 493, Exercise 6.34: (ii) $m \leftrightarrow M$
25. Page 493, Exercise 6.35 (i) Units Newtons (ii) $625\sqrt{3}\mathbf{i} + 1125\mathbf{j}$

26. Page 494, Exercise 7.13: 17.2 years
27. Page 495, Exercise 7.31: $M = 10.72 \text{ GeV}/c^2$
28. Page 496 Exercise 8.22 (i) 2.8s
29. Page 496, Exercise 8.34 (ii) $x(t) = 0.103 \cos(16t - 2.98)$ (Use $\tan \theta = \tan(\theta + \pi)$)
30. page 505 Index item: “complimentary” should be “complementary”