

Errata R. Shankar Fundamentals of Physics February 27, 2019

The pages and lines here refer to lines of the first edition of textbook. I do not have access to the final PDF for me to refer to since the PDF I sent was modified by the Latex Editor but I was not given the final version.

1. Page 2, line 6, para 2: should read “.. phys-200, and over 300 (with answers but not solutions) after Chapter 24.”
2. Page 5 Second line, second para: “at time t_1 ” should read “at time t_2 ”
3. Page 40 Eqn. 3.4 should read $m_E = 1 \cdot \frac{a_1}{a_E}$
4. Page 63 Line 2: ”If the magnitude of the displacement is the same, so are the magnitudes of velocity and acceleration..”
5. Page 151 .. $a_{Ti} = r_i \alpha$ is F_{Ti}
6. Page 152 ”.. while the radial part and the internal forces will keep the body rigid and furnish the requisite centripetal force.”
7. Page 211 ”by reversing the sign of θ in Eqns. 13.3 and 13.4”
8. Page 213 Formula 13.18 in denominator replace $\frac{vw}{c^2}$ by $\frac{uw}{c^2}$.
9. Page 216 Eqn 13.21

$$\Delta t' = \frac{\tau_0 - 0 \cdot \frac{u}{c^2}}{\sqrt{1 - \frac{u^2}{c^2}}}$$

10. Page 227, Eq. 14.1: $v^2/c^2 \rightarrow u^2/c^2$
11. Page 238 Eqns. 14.40 and 14.41 $a'_3 = a_3 \rightarrow a'_2 = a_2$ and $a'_4 = a_4 \rightarrow a'_3 = a_3$
12. Page 239, Eqn. 14.44 remove the huge square root put in just curved brackets as follows:

$$\left(1 - \frac{1}{c^2} \left(\frac{dx}{dt}\right)^2\right).$$

13. Page 261 Sec 16.2 line 3: $(1 - x)^{n-1} \rightarrow (1 + x)^{n-1}$
14. Page 264 Eq. 16.27 should read $\cos x = 1 - \frac{x^2}{2} + \dots$
15. Page 268 line 6 Eqn. Eqn. 16.40 should read 16.41
16. Page 282. Line 3 end the sentence after the word ”pendulum”. (with no reference to any figure.)
17. Page 310 about 2 sentences above Eq 18.13 and then I wil analyze it has misspelled will
18. Page 316 ”This is just half the mass of the segment ...”

19. 2 sentences above Eq 19.23 while will reduce to Eqn. 19.22 should be which will...
20. Units for specific heat have to be corrected in FIVE places:
Page 362 2 lines above Eq. 21.3 and twice in 21.3: cal/g or $kcal/kg$ must become

$$cal/(g \cdot K)$$

$$kcal/(g \cdot K)$$

Do the same in Page 363 line 2 of penultimate paragraph

Do the same in Page 364 in two line paragraph to read $c_2 = 1kcal/(kg \cdot K)$

21. Page 404, line 6 from bottom should read “until you get to D.”
22. Page 413 ”parts of Q_{0i} may be negative...”
23. Page 414, caption for Fig. 24.1 ” If it happens that $\Delta Q_i < 0...$ ”
24. Page 405: In Eqn. 23.24 nT_1 should be nRT_1 , and in Eqn. 23.25 nT_2 should be nRT_2