Errata for *Conquering the Physics GRE*, edition 3

October 25, 2018

This document contains corrections to *Conquering the Physics GRE*, edition 3. Feel free to contact us at physics@physicsgreprep.com if any of the information here is unclear.

1 Electricity and Magnetism

- §2.4.1 p. 52: To maintain consistency with the notation introduced in equation (2.48), the subsequent (unnumbered) equation should read

$$\mathbf{p} = \sum_i q_i \mathbf{r}_i. \tag{1}$$

2 Optics and Waves

- Figure 3.8 p. 70: The line in the diagram indicating the length of $d \sin\theta$ is slightly too long. A clearer replacement diagram is shown in Figure 1 below.

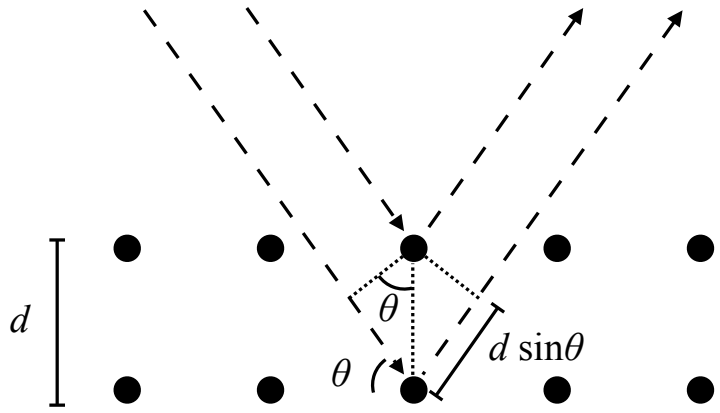

Figure 1: Replacement for Figure 3.8 indicating the correct length of $d \sin\theta$.

3 Quantum Mechanics

- Example 5.4 p. 111: In the final paragraph, the discussion of the $s = 0$, $m = 0$ state should read: "... since it has a different eigenvalue for $\hat{S}^2$ from the $s = 1$, $m = 0$ state..."

4 Special Relativity

- §6.3 p. 127: The last sentence of the introductory paragraph refers to "both books by Griffiths," which is ambiguous because Griffiths has written three, not two, introductory physics books. Replace this with "A careful treatment with many examples can be found in both Griffiths's book on electrodynamics as well as his text on elementary particles."

5 Laboratory Methods

- §7.4.2 p. 140: The first sentence of the section on Compton scattering should read: "The photon scatters *in*elastically off an atomic electron..."

6 Specialized Topics

- Problem 13, p. 157: There are numerous errors in this problem, which cannot be salvaged by a single modification. Please skip this problem, and we will replace it in a future edition.

7 Sample Exam 3

- p. 225: The diagram for problem 97 uses k to refer to the dielectric constant. This should instead be κ to match the notation in the problem text.

8 Equation Index

- p. 272: There is a missing comma in the commutator of equation (5.15) (as reproduced in the index, but not in the main text). It should read: $[\hat{x}, \hat{p}] = i\hbar$.