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Princeton Guide to Advanced Physics

Page 5, Equation 1.21 should read:

Equation 1.21 should read:

$$\begin{aligned}\int_a^b (\vec{\nabla} \varphi) \cdot d\vec{l} &= \int_a^b \left(\frac{\partial \varphi}{\partial x} dx + \frac{\partial \varphi}{\partial y} dy + \frac{\partial \varphi}{\partial z} dz \right) \\ &= \int_a^b \left(\frac{\partial \varphi}{\partial x} \frac{dx}{dt} + \frac{\partial \varphi}{\partial y} \frac{dy}{dt} + \frac{\partial \varphi}{\partial z} \frac{dz}{dt} \right) dt \\ &= \int_a^b \left(\frac{d\varphi}{dt} \right) dt \\ &= \varphi(b) - \varphi(a).\end{aligned}\tag{1.21}$$

Page 7, last two lines should read:

where we have made **use** of the fact that dx for region *I* is opposite in direction to the dx for Region *IV*. This further reduces to

Page 18, third line should read:

Consequently, **for $t > 1$** , the solution for $x(t)$ is

Page 55, fifth and sixth lines should read:

If, instead, we let t_2 be the time it takes to **rise to, and fall back** from, height h , we have $v_i = v_o$ and $t_2 = 2t_1$. The deflection is

Page 61, Example 2.4

From left to right, the spring constants should be **k, 3k, and k**.

Page 106, Example 3.4

Figure is missing, should be as shown

Page 123, second line from bottom should read:

Because equations **5.7** and **5.8** must be equal, we have

Page 141, fifth line should read:

In the chapter on thermodynamics, it is shown (eq. **11.99**) that the ratio of

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Page 149, Figure 6.3

Magnetic field is missing, it should be pointed into the page.

Page 200, Section 8.2.2.1 heading should read:

8.2.2.1 Time Dependence of ψ

Page 261, first line should read:

J. J. Thomson hypothesized that cathode rays were composed of ~~an~~ a

Page 324, second line from bottom should read:

where ω is the number of a priori equally probable states accessible to the

Page 368, Example 1.2 should be Example 1.1

Page 370, Example 1.1 should be Example 1.2, and first line should read:

Consider a linear periodic potential consisting of delta functions

Page 370, Equation 12.53 should read:

$$\left\{ \frac{\hbar^2 k^2}{2m} u_{nk}(x) - \frac{\hbar^2}{2m} u_{nk}''(x) - E u_{nk}(x) + \sum_{j=-\infty}^{+\infty} A \delta(x - a_j) u_{nk}(x) \right\} e^{ikx} = 0, \quad (12.53)$$

Note: The minus sign that was incorrectly associated with the first term of this equation also propagates through the next several equations.

Page 379, fourth sentence should omit words “as shown”.

Page 380, last sentence should read:

Using the coordinate system shown below, The boundary conditions are

Page 392, last element (Lr) should be number 103