Introductory Physics

Errata

We always strive to make our textbooks as accurate as possible, but sadly, errors are a reality. We very much appreciate friends who report errata that are not included in this document!
Please send new errata to info@novarescienceandmath.com

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Introductory Physics, 2nd edition (2016)

Chapter 2

Exercises

7. Answer should have five significant digits, not 4. Answers: 983,560,000 ft/s and 9.8356 x 10^8 ft/s.

Chapter 6 Text

p. 140, example problem - the dimensions of the block should be 4.0 in x 2.5 in x 9.0 in.

Volume, Mass, and Weight Exercises

10. The stem in the answer should be 3.600.

20. 21,780 m^3

Density Exercises

11. 25,000,000 lb

Weekly Review Guide

WRG 9, Question 4 is a momentum problem, which has not been covered yet. Below is a replacement problem.

A truck traveling at 55 mph hits the brakes and slows to 27 mph in 3.55 s. Determine the acceleration of the truck.

Answer: –3.8 m/s^2

WRG 15, Question 1
\[ m_1 = 6.696 \times 10^{-27} \text{ kg} \]
\[ m_2 = 3.348 \times 10^{-25} \text{ kg} \]
\[ v_{i1} = 1.500 \times 10^7 \frac{\text{m}}{\text{s}} \]
\[ v_{f1} = 1.441 \times 10^7 \frac{\text{m}}{\text{s}} \]
\[ p_{i1} = -p_{f1} + p_{2f} \]
\[ p_{2f} = p_{i1} + p_{f1} = m_1 v_{i1} + m_1 v_{f1} = m_1 (v_{i1} + v_{f1}) \]
\[ p_{2f} = 6.696 \times 10^{-27} \text{ kg} \left( 1.500 \times 10^7 \frac{\text{m}}{\text{s}} + 1.441 \times 10^7 \frac{\text{m}}{\text{s}} \right) = 1.9693 \times 10^{-19} \text{ kg} \cdot \frac{\text{m}}{\text{s}} \]
\[ p_{2f} = m_2 v_{2f} \]
\[ v_{2f} = \frac{p_{2f}}{m_2} = \frac{1.9693 \times 10^{-19} \text{ kg} \cdot \frac{\text{m}}{\text{s}}}{3.348 \times 10^{-25} \text{ kg}} = 588,200 \frac{\text{m}}{\text{s}} \]

**Solutions Manual to Accompany Introductory Physics, 2nd edition (2016)**

Chapter 6

11. Answer is correct. But in the solution, the mass should be rounded to 1.14 \times 10^7, not 1.13 \times 10^7. Similarly, the weight should be rounded to 1.12 \times 10^8 not 1.11 \times 10^8.

**Introductory Physics, 1st edition (2013)**

Chapter III Exercises

7. 1.64 m/s²

Chapter VI Text

p. 126 Example problem - the dimensions of the block should be 4.0 in x 2.5 in x 9.0 in.

Volume Mass and Weight Exercises

7. Correct significant digits make the answer 1.0 \times 10^5 lb.

Density Exercises

11. Correct significant digits make the answer 25,000,000 lb.

Chapter VIII Exercises

Pressure Problems

12. 36,000 Pa, 5.2 psi
13. 5,200,000 Pa, 750 psi
Buoyancy Problems

3. $1.90 \times 10^3$ N

Chapter IX Text

Figure 9-4: The direction of rotation for the floating object shown in the figure should be clockwise.

Chapter XI Exercises

Multi Resistor Circuit Calculations III

2. $I = 0.9071 \text{ mA}, P = 0.4526 \text{ mW}$

4. $V = 2.8001, I = 3.0770 \mu\text{A}, P = 8.6159 \mu\text{W}$

Weekly Review Guides

WRG 12, Question 4. $p = 2.07 \times 10^{-20} \text{ kg.m/s}$