

## Pearson Physics 4<sup>th</sup> Printing Updates

Page	Text	Correction
15	Example 1.2, Practice Problem 1. (a)	Lines on the graph should begin at (0,0.0)
97	Example 2.7, Practice Problem 1	<b>An airplane flies with an air velocity of 750 km/h [N]. If the wind velocity is 60 km/h [15° E of N], what is the plane's ground velocity?</b> The correct answer is <b>8.1 x 10<sup>2</sup> km/h [1° E of N]</b>
97	Example 2.7, second last line	There should be a negative sign in front of 36.25 km/h.
219	Calculating the Weight of an Object on Mars, second last sentence	The rover had a mass ..., the rover weighed about <b>2.6</b> times less than on Earth's surface.
244	Figure 5.9	Triangle should be similar to triangle in Figure 5.10. As the pebble moves from point A to point B, it moves <b>through a small angle</b> and experiences....
251	Second paragraph	Earth has an orbital radius of approximately <b>1.50 x 10<sup>8</sup> km</b> , ... [substituting this value into the equation] Earth's speed as it orbits the Sun is approximately <b>108 000 km/h</b> .
253	Figure 5.19, triangle on the left	Triangle should be similar to the one on the right.
253	Figure 5.20	The angles ( $\theta$ ) in both triangles should be reduced to 15°.
266	Centripetal Force	8 lines from the bottom—The centripetal force is $F_c = ma$ , so the centripetal <b>force</b> is:...
273	Table 5.5 Solar Celestial Bodies	Mean Orbital Radius (m) for Earth is <b>1.50 x 10<sup>11</sup></b>
290	Chapter 6 Opener	9 lines from the top—It seems obvious to us that as objects move, <b>mechanical</b> energy is always lost.
356	Figure 7.20	2 <sup>nd</sup> sentence from the top—In (b), the spring stretches until the force exerted by the <b>spring</b> is equal...
371	Concept Check, 3	The acceleration-displacement graph and velocity-displacement graph are shown in <b>Figure 7.34 on page 369</b> for half of an oscillation only.
389	Conceptual Overview	$\vec{F} = -k\vec{x}$
390	Chapter 7 Review, 17	... When the teacher hangs a mass of <b>100.0 g</b> ...
506	Unit V Review, 66	... sending it off at <b>1.50 m/s</b> [58.6° E of N].
548	2 <sup>nd</sup> equation from the bottom of the page	$ \vec{E}  = \frac{kq_1q_2}{r^2}$
618	Mind On: Lenz's Law	In this activity, a penny should be used instead of a dime.
648	Empirical Determination of the Speed of Electromagnetic Radiation, middle of page	...Galileo didn't know it at the time, but light could travel 2 km in about <b>0.000 006 667 s</b> , ...
670	Example 13.4, <i>Required</i>	the wavelength of light travelling in diamond ( $\lambda_2$ )
676	Table 13.5 Wavelength of each colour in the spectrum	green—500-550 nm; red—650-750 nm
690	Example 13.8, Practice Problem 1	<b>4.5 x 10<sup>-7</sup> m</b>
742	Chapter 14 Review, 15	Modern Transmission electron microscopes can accelerate electrons through a <b>100-kV</b> potential difference...
805	Example 16.10	6 lines from the bottom, the positive sign should be changed to a negative sign: $\Delta m = m_{13\text{N}} - (m_{13\text{C}} + 2m_{-1\beta})$
810	16.2 Check and Reflect, 11. (g)	${}^1_1\text{p} \rightarrow {}^1_0\text{n} + {}^0_1\beta + \nu$
856	Unit VIII Review, 24	$\bar{\nu}_e + \text{p} \rightarrow \text{n} + \text{e}^+$

Page	Numerical Answers	Correction
314	Example 6.9, <i>Paraphrase and Verify</i> (b)	The kinetic energy increased from ..., while the gravitational potential energy decreased from $2.75 \times 10^5$ J to $1.21 \times 10^5$ J.
551	Example 11.4, Practice Problem 2	$1.56 \times 10^{14}$ N/C [90°]
694	Example 13.10, Practice Problem 1	$5.94 \times 10^{-7}$ m *Complete solution provided upon revision.
764	Example 15.4, Practice Problems 1, 2	1. $2.8 \times 10^{-13}$ N [down]    2. $5.8 \text{ m/s}^2$ [down]
820	Example 16.15, Practice Problem 1. (b)	23 mg
822	Example 16.16, Practice Problems 1. (a), (b)	(a) $3.7 \times 10^{36}$ (b) $3.1 \times 10^{27}$ kg
891	page 90, 2.2 Check and Reflect, 5. (c)	Displacement = 1.45 km [270°]
893	page 234, Unit II Review, 35. (b), (c)	(b) $1 \times 10^1$ N [forward]    (c) $4 \times 10^1$ N [backward]
893	page 310, 6.2 Check and Reflect, 5	$\Delta E_k$
894	page 436, Chapter 8 Review, 9	$1.6 \times 10^{-2}$ m
894	page 436, Chapter 8 Review, 21	$f = \frac{2}{3}$ source frequency
895	page 503, Unit V Review, 66. (a)	3.55 m/s [2.0° W of N]
895	page 503, Unit V Review, 80	(initial <b>speed</b> of car) 90 km/h; (initial <b>speed</b> of truck) 88 km/h
895	page 553, 11.1 Check and Reflect, 9. (a), (b)	(a) $2.50 \times 10^7$ N/C [toward the $-3.00$ mC charge] (b) 0.661 m [left of the $-3.00$ mC charge]
895	page 622, Chapter 12 Review, 26. (b)	$\vec{F}_m$ varies as $1/r$ or $1/r^2$
895	page 622, Chapter 12 Review, 28	2.50 N
896	page 697, 13.5 Check and Reflect, 6	$5.70 \times 10^{-6}$ m
896	page 697, 13.5 Check and Reflect, 8	0.374 m * Complete solution provided upon revision.
896	page 746, Unit VII Review, 57	$d_i = 10$ cm, $h_i = -3.0$ cm; image is real, inverted, and same size as object
897	page 784, 15.5 Check and Reflect, 4. (b), (c)	(b) $1.99 \times 10^{-24}$ kg · m/s (c) $E_k = 2.18 \times 10^{-18}$ J
897	page 826, Chapter 16 Review, 26. (b)	8.955 MeV
897	page 826, Chapter 16 Review, 29. (b)	$1.9 \times 10^{-9}$ kg
897	page 855, Unit VIII Review, 45	$5.11 \times 10^4$ m/s
898	page 855, Unit VIII Review, 52. (b)	...more than <b>140</b> times...
898	page 855, Unit VIII Review, 53	0.21 g deuterium, 0.32 g tritium