

List of known corrections to the PHY 231C online lectures

Lecture#2 Motion in One Dimension

Motion in 1D: acceleration, slide #3 last line of the table, describing the motion is incorrect. Should read:

Traveling with ~~decreasing~~ **INCREASING** speed in the negative direction

Lecture#8 Motion in One Dimension

8.3 Torque and angular acceleration, slide 7 "the rotation axis matters", I is calculated for each situation. For the first case on the left side: $I = 0.5 \text{ kg}\cdot\text{m}^2$ is incorrect. The correct value for the moment of inertia, I is **$0.25 \text{ kg}\cdot\text{m}^2$**

Lecture#12 Thermodynamics, Heat Engines

Example: First Law, slide 2: When inserting the change in the volume into the equation: $W = -p\Delta V$, the value of ΔV should be negative – the minus sign is missing. The result however is correct.

Lecture#13 Oscillations, Waves

Example: Mass/spring and pendulum, slide 2, part d solution. When calculating both the velocity and acceleration, the value of the period was used instead of the value of the angular frequency.

Incorrect: $v(t) = -\omega A \sin(\omega t) = -0.028 \sin(22.4t)$

CORRECT $v(t) = -\omega A \sin(\omega t) = -2.24 \sin(22.4t)$

Incorrect: $a(t) = -\omega^2 A \cos(\omega t) = -0.0078 \cos(22.4t)$

CORRECT: $a(t) = -\omega^2 A \cos(\omega t) = -50 \cos(22.4t)$