

## FULL PERIOD QUIZ or TEST CORRECTION PROTOCOL (Discretionary)

**NOTE: This correction opportunity is made available for select closed notes Tests / quizzes at the instructors discretion.**

On separate sheet(s) of paper - correct your Quiz / Test as follows. For each problem marked either partially or totally incorrect:

(1) **Restate the complete problem\***.

(2) **Solve problem correctly and completely** (i.e. as per the "Problem Solving Protocol" found under the "General Correspondence" tab of the [foundationsofphysicalscience.org](http://foundationsofphysicalscience.org) website).

(3) **Find and restate that WOD, Study Guide Item Number(s) (and associated description) or Text/Reference paragraph/sentence from which the correct answer could be deduced.** Daily notes, that are published, may be referenced, but as always, the complete referenced part must be **restated** and the **underlying principle must cited in detail** (e.g. not just  $F=ma$  but rather  $F=ma$  with a full definition of terms as in the text or study guide or other)\*.

(4) Your responses to above items 1, 2 & 3 must be typed\* & grouped together before item 5 below - then **draw a horizontal line, the entire width of the paper, between each problem.**

(5) Hand your solution, *with your Name, Section & Date in the upper right hand corner*, in - together with your quiz/test bubble sheet on the due date (i.e. *staple your original test/quiz bubble sheet behind the correction sheet(s).*) Late submittals may not be accepted or may only be accepted w/penalty. **Any submittal with significant deviations from this protocol may not be accepted.**

Grading: The student's submittal will be graded in accordance with the requirements of this protocol and will be counted as a separate test/quiz grade as applicable.

\*NOTE: Though "electronic" cutting & pasting from an internet, text or other reference is permitted - remember there is much to be gained from a "learning" standpoint by manually typing the information. Sketches/graphs may be manually constructed.

---

### SAMPLE SOLUTION

#12 An automobile jack exerts a force of 4,500 newtons to raise a car 0.25 meters. The amount of work done by the jack is about \_\_\_\_\_ joules.

- a. 0.00056
- b. 1,100
- c. 4,500
- d. 18,000

The correct answer is "b" as follows:

Work =  $[\text{Force}]_{\parallel} \times [\text{Distance}] = 4,500 \text{ newtons} \times 0.25 \text{ meters} = 1,125 \text{ joules}$ . As such the closest answer is "b".

Citation: Second Quarter Quiz Study Guide Item #16:

Work = Force $_{\parallel}$  x Displacement =  $[F_{\parallel}] [\Delta d]$  (Where the Force is in parallel with the direction of the displacement.) The units of Work are Joules - where

One Joule is the Work done by a Force of One Newton through/over a distance of One Meter.

