

# Physics AP C Mechanics and Electricity & Magnetism

## Mr. Furia

A summer assignment is necessary to ensure that you have not forgotten everything that you learned in Physics H. The summer assignment is a multiple choice exam and selected free response questions from the AP exams Mechanics-C and E&M-C.

Since you have a year of physics, you are capable of answering many of the questions from an AP exam. I have identified below the multiple choice questions that I believe you should be able to answer. I have also selected free response questions that you can answer completely or in part. You can answer additional multiple choice questions for extra credit.

Your summer assignment is to complete the questions or parts of questions that I have identified. This will serve as a review for much of the material that we covered during Physics H and it will have you ready to go in September. You can use whatever materials you have at hand. You can work with partners, but if you just copy another's work or get the solutions from *AP Central*, then you should reconsider taking this AP course. A copy of the textbook MAY NOT be available. If not, I suggest you obtain the *Princeton Review for AP Physics* or a similar AP test preparation book.

### 1) Obtain Physics C AP exam

- i) Link available in Summer Assignments on KHS website

### 2) Multiple Choice

- a) In addition to selecting your answer, briefly explain why you chose it
- b) Mechanics
  - i) #1-11; 14-19; 21-25; 27-28; 31-34
- c) Electricity and Magnetism
  - i) #36-37; 41, 43-49; 55, 62, 65, 70

### 3) Free response

- a) Show all work
- b) Mechanics
  - i) Mechanics 1: conservation of energy, Newton's laws and circular motion, conservation of momentum and collisions, kinematics
  - ii) Mechanics 1: vibrations, Newton's second law
  - iii) Mechanics 2: gravitation and Kepler's laws
- c) Electricity and Magnetism
  - i) E&M 2: resistance and resistivity, Ohm's law, electric and magnetic fields
  - ii) E&M2: (a) I and graphing only (b) i

### 4) Format

- a) Show all work
- b) Multiple Choice
  - i) In addition to selecting your answer, briefly explain why you chose it
- c) Do not type

### 5) Due Date

- a) First day of class

### 6) Grading

- a) Graded with a value of 100 points

### 7) Other

- a) You can answer additional multiple choice questions for extra credit