

AP Mechanics Summer Assignment

The first topic we will study in Mechanics will be motion and vectors. This will include projectiles and conservation of energy. So, I felt it wise to review both the addition of vectors and work and energy.

I. Vectors

1. Read sections 1.7 – 1.9 pages 10-19 in the text. You should know how to add vectors and to find components of vectors.
2. On page 29 do problems 26-29 and 31-34

II. Work and energy

1. Read sections 6.1 – 6.3 You should be familiar with work, energy and conservation of energy.
2. Pg 200 – 201 do problems 34,35, 41 and 42
3. Read sections 7.4 and 7.5 Pay particular attention to the graphs of potential energy vs x and force vs x
4. Pg 235 Do problems 34-39

The answers to the odd numbered problems are in the back of the book, so you can check yourself. Be prepared to hand in the even numbered ones the first week of school in September.

Khan Academy has tutorials available on visualizing vectors, unit vectors, work and energy, motion and projectiles. You may want to view some or all of these to supplement the reading.