The following suggested homework problems will not be graded, but should be done for review before each Exam. Most of these problems are from your textbook (College Physics, 8th Edition, Serway & Vuille). The solutions are posted in one of four Solution Sets on the course web page. **Try to work these problems out by yourself before looking at the solutions I have supplied for you.**

1. Problems 1.55, Page 22. (Solution Set 1-1.)

2. A farmer measures the perimeter of a rectangular field. The length of each long side is of the rectangle is found to be 38.44 m, and the length of each short side is found to be 19.5 m. What is the perimeter of the field? (*Hint:* Worry about significant digits.) (Solution Set 1-2.)

3. Problems 1.24, Page 20. (*Hint:* Worry about significant digits.) (Solution Set 1-3.)

4. Problem 1.38, Page 21. (Solution Set 1-4.)

5. Problem 1.43, Page 21. (Solution Set 1-5.)

6. Problem 2.5, Page 49. (Solution Set 1-6.)

7. Problem 2.19, Page 50. (Solution Set 1-7.)

8. A drag racer starts her car from rest and accelerates at 10.0 m/s$^2$ for a distance of 400 m (1/4 mile). (a) How long did it take the race car to travel this distance? (b) What is the speed of the race car at the end of the run? (Solution Set 1-8.)

9. Problem 2.47, Page 51. (Solution Set 1-9.)

10. A young woman named Kathy Kool buys a sports car that can accelerate at the rate of 4.90 m/s$^2$. She decides to test the car by drag racing with another speedster, Stan Speedy. Both start from rest, but experienced Stan leaves the starting line 1.00 s before Kathy. If Stan moves with a constant acceleration of 3.50 m/s$^2$, and Kathy maintains an acceleration of 4.90 m/s$^2$, find (a) the time it takes Kathy to overtake Stan, (b) the distance she travels before she catches him, and (c) the speeds of both cars at the instant she overtakes him. (Solution Set 1-10.)

11. Problem 3.4, Page 76. Do the problem both graphically (as requested by the text) and algebraically. (Solution Set 1-11.)

12. Problem 3.17, Page 77. (Solution Set 1-12.)

13. Problem 3.22, Page 77. (Solution Set 1-13.)
14. Problem 3.38, Page 79. (Solution Set 1-14.)

15. Problem 3.51, Page 80. (Solution Set 1-15.)