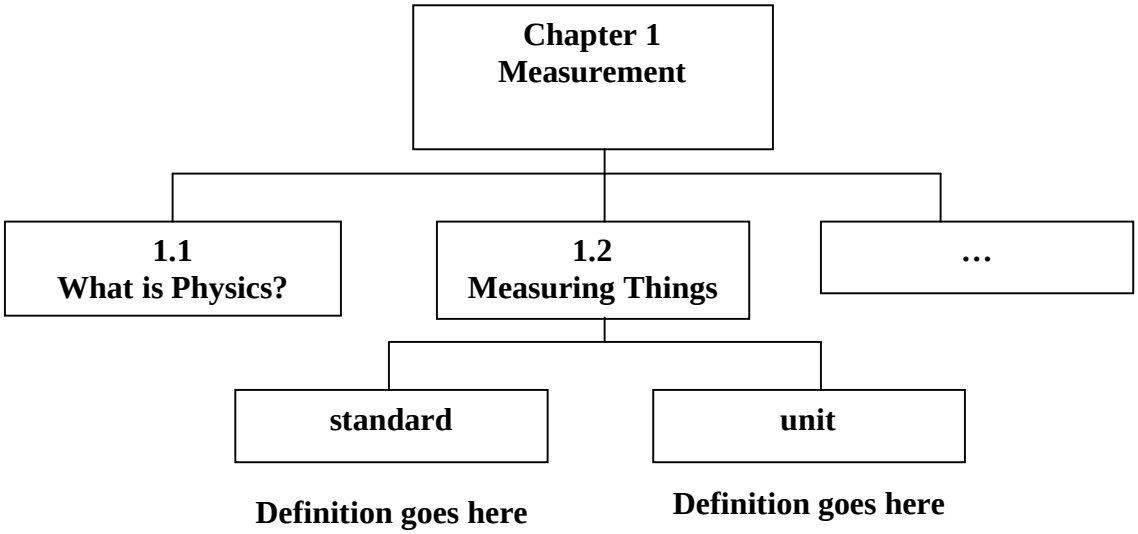
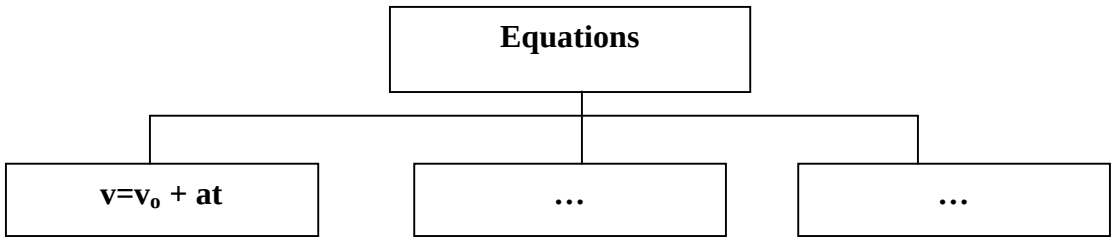
AP Physics Homework Guidelines

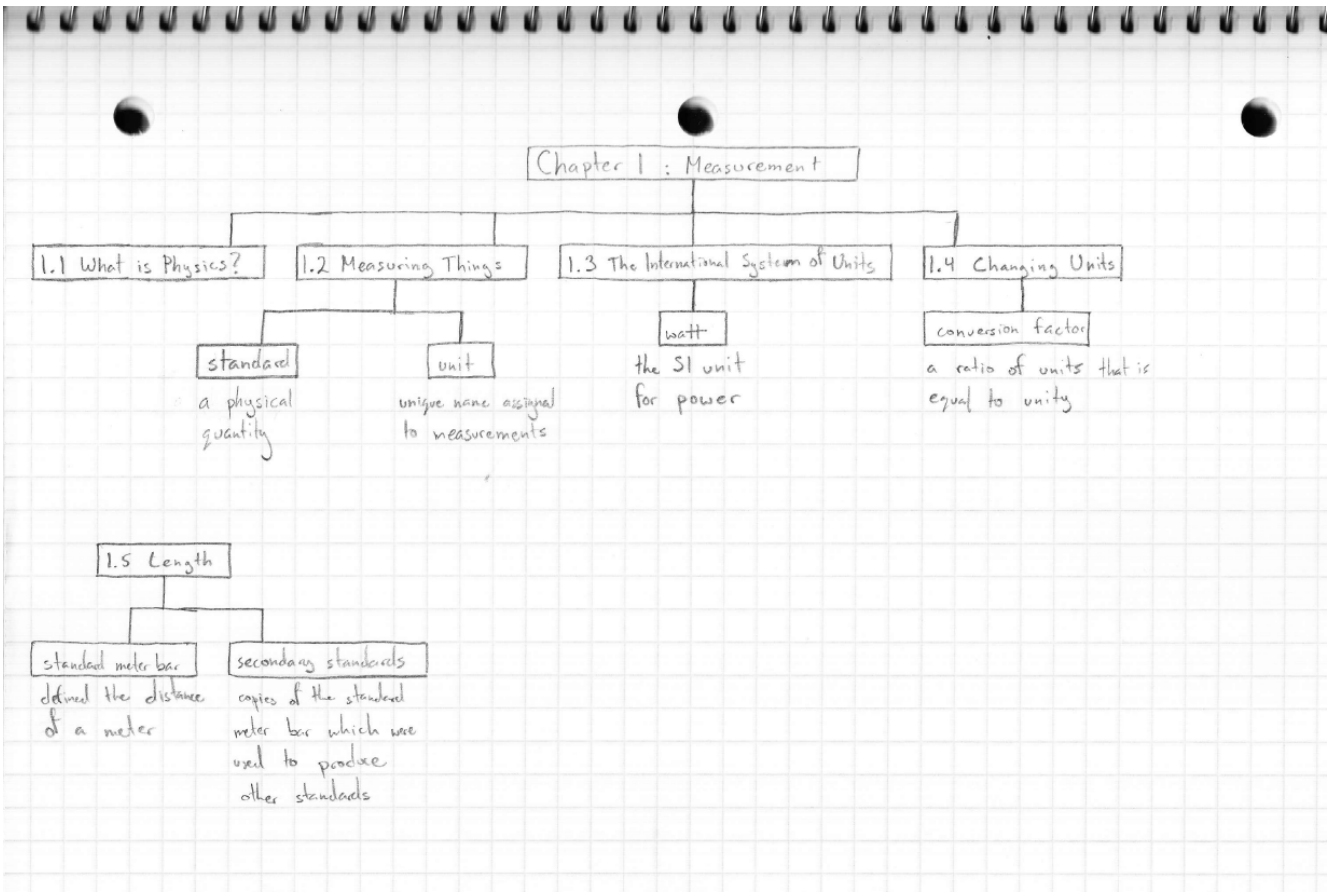
Each homework may consist of a reading outline, problems, or both. Below are the guidelines for each of these components of the homework. Homework is to be done in your spiral graph notebooks in pencil. Both the front and the back of each page in the homework can be used.

1. Reading outline (landscape format, may use front and back of page)
You should read and outline each assigned section in the chapter as shown below. Your outline should AT MINIMUM have a box for each term with its definition and a box for each equation. For equations you should define each term in the equation along with the unit for each term in the equation.





v = final velocity [m/s]
v_0 = initial velocity [m/s]
a = acceleration [m/s^2]
t = time [s]


Chapter 1 : Measurement
1.1 What is Physics?
1.2 Measuring Things
1.3 The International System of Units
1.4 Changing Units
standard
a physical quantity
unit
unique name assigned to measurements
watt
the SI unit for power
conversion factor
a ratio of units that is equal to unity
1.5 Length
standard meter bar
defined the distance of a meter
secondary standards
copies of the standard meter bar which were used to produce other standards

2. Problems

Problems at the end of the chapter can be a conceptual question which requires a short answer OR a numerical calculation type (quantitative) problem. For a quantitative problem, the format of the problem is as follows:

1

Given: (You should have a picture of the problem here. Turn the word problem into a diagram.)

Find: (write what you need to find here, for example: "v", if you need to find the final velocity)

Solution:

1. List equations	2. List variables	3. Solve
$x=x_0+v_0t+1/2at^2$	$x_0 = 0$ [m]	$v=v_0+at$
$v=v_0+at$	$x = 3$ [m]	$v=1+(3)(2)$
$v^2=v_0^2+2a(x-x_0)$	$v_0 = 1$ [s]	$v= 7$ [m/s]
	$v =$ _____	(box your final answer)
	$a = 3$ [m/s^2]	
	$t = 2$ [s]	

Problem numbers should be BOXED and highlighted in yellow.
Late homework will receive ½ credit.

Kinematics Model
Example Problem #25

Suppose a rocket ship is deep space moves with constant acceleration equal to 9.8 m/s^2, which gives the illusion of normal gravity during the flight. (a) If it starts from rest, how long will it take to acquire a speed of one-tenth that of light, which travels at 3.0 x 10^8 m/s? (b) How far will it travel in so doing?