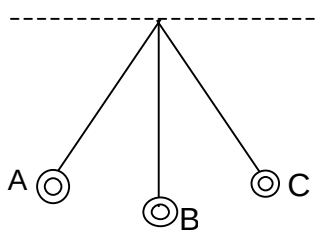
Lab Report – Pendulum _____

Position "B" on the diagram is called the _____ position. When the pendulum bob moves from "A" to "B", it (accelerates, decelerates), and when it goes from "B" to "C", it (accelerates, decelerates). This kind of motion is called simple _____ motion. When the bob moves from "A" to "C" and back to "A" again, it has made one complete cycle or _____.



The maximum distance the bob moves from the equilibrium position is its _____. The time it takes to make one complete vibration is called the _____. The _____ is the number of vibrations it makes in one second. Since frequency (f) uses the unit, "vib/s", and period (T) uses "s/vib", write an equation showing how "f" and "T" are related: _____

Table I:

bob mass (washers)	avg. frequency(vib/min)
* 1	
2	
3	

Table II

amplitude(cm)	avg. frequency(vib/min)
* 10	
5	

Table III

length(cm)	avg. frequency(vib/min)
* 40	
25	
15	

Conclusions:

1. The only factor that affects a pendulum's frequency is _____.
2. When the length of a pendulum is increased, the frequency (increases, decreases).
3. How would you adjust the pendulum of a grandfather clock if it were running too slow?
   _____
4. On the back of this sheet, put your pencil in one spot at the top of the page and move it side-to-side several times. Continue this motion while you move the pencil down the page. Use what you learned about pendulums to:
   a. measure the distance the pencil moved as it made 1 complete vibration. _____ (Use brackets to label this distance on your drawing.)
   b. measure the amplitude of the vibration. _____ (Label it on the drawing.)