

Upcoming Senior IB Physics Summer Assignment (Class of 2018)

Introduction: The summer assignment for this year will be to complete the review problem solving in LONCAPA. These problems will be a good review for you as we go into next year. This assignment will be worth a test grade as you return. The LONCAPA will be due by Wednesday 11:59 PM on the 9th of August before you return... Late 1 day 75%, two days 65%, three or more days 50%... so please plan ahead... the best way will be to do them spread out every so often during the summer. You will not be able to use the excuse that they were not available on Thursday night or something... you have the entire summer so make sure to plan ahead. Please don't print them ahead of time and then do them at the end. I had one student print them out at the beginning of the summer and the numbers had changed by the end of summer.

Guidelines: These LONCAPA questions will be from the various units we completed during this year. Your notes will be a good help for you but try to solve them with just your equation sheet and go as far as you can without your notes. This will be the best way to practice these questions.

For each question you will need a clear picture (A1), the original equation (A2), the equation broken down with variables before you put numbers in (see below (A3)), and then your numbers (A4), and final answers (A5). Make sure you don't skip any steps... example...

$$\Sigma F = ma_x$$

Don't skip...

$$(+F_{Ax}) + (-F_{Bx}) = ma_x$$

Don't skip...

$$(+F_A * \cos 25) + (-F_B * \cos 40) = ma_x$$

Then put numbers in...

Clearly show substitutions with variables as well (as applicable)

If you miss a question after 5 tries... (you must follow this to get back credit on the questions)

1 – write down the full question on your sheet as well as the final answer... make sure you have the title of the question (or print the question out with the answer) (B1)

2 – write out all the variables with numbers... $a = 1.4 \text{ m/s}^2$, $v_i = 5 \text{ m/s}$ (B2)

3 – then solve the question as shown above (B3)

4 – write down the reason for your mistake in a full sentence or sentences (B4)

If you have a problem that you can't figure out... (you must follow this to get back credit on the questions)

1 – write down the full question on your sheet as well as the final answer... make sure you have the title of the question (or print the question out with the answer) (C1)

2 – write out all the variables with numbers... $a = 1.4 \text{ m/s}^2$, $v_i = 5 \text{ m/s}$ (C2)

3 – work out the problem all the way until you get stuck (just saying "I didn't know where to start" will not be acceptable... these problems are all review) (C3)

4 – write out where you are getting stuck in full sentences (C4)

5 – you will still turn in your packet on the day we come back... plan on coming in within the first 2 days of school to meet about the question and we can look over it together (C5)