

AP Calculus AB Start Up Assignment

Student Learning Plan (SLP)

In the following table, you will see two columns beside courses. “C” stands for completed and “IP” stands for in-progress. Please put a checkmark in the appropriate box. For courses you have not taken yet, please leave blank.

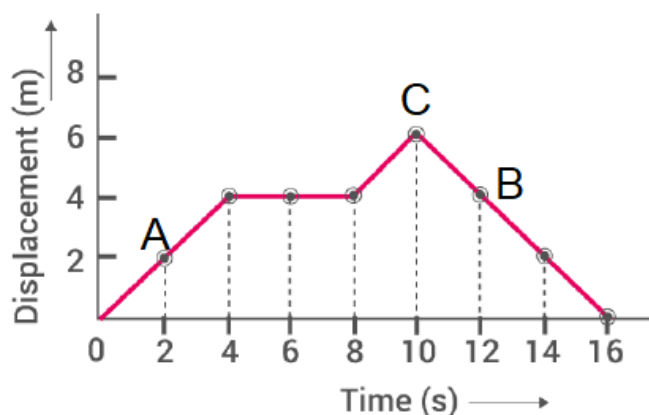
What grade are you currently in?						
If you are on the adult graduation program, or have graduated, check this box and go on to page 2. Contact your VLN counsellor if you are not sure which graduation program you are on.						
Required Courses (52 credits for graduation)						
		C	IP		C	IP
English 10 Composition (2) (or other English 10 course)				Science 11 or 12 (4)		
English 10 Literary Studies (2) (or other English 10 course)				Mathematics 10 (4) (Workplace or Foundations/Pre-Calculus)		
Literary Studies 11 or Composition 11 (4)				Mathematics 11 or 12 (4) (Workplace, Foundations or Pre-Calculus)		
English Studies 12 or English 12 First Peoples (4)				Physical and Health Education 10 (4)		
Social Studies 10 (4)				Arts Education and/or Applied Design, Skills and Technologies (4)		
Social Studies 11 or 12 (4)				Career Life Education 10 (4)		
Science 10 (4)				Career Life Connections & Capstone 12 (4)		
Elective Courses (28 credits for graduation)				Required Assessments		C
	Course Name	C	IP	Grade 10 Numeracy		
Grade 10, 11, or 12				Grade 10 Literacy		
				Grade 12 Literacy		
				Please ensure you complete at least one Indigenous or First Peoples course (Grade 10, 11, or 12) in order to graduate.		
Grade 12				Course Name		C IP
Date and Signature						
Student's Full Name (type)					Date	

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Start Up Assignment

Please answer the following questions about limits and rates of change. Remember to use complete sentences to summarize your answer (don't just do the calculations!).

1. Here is a displacement vs time graph of some object moving along a straight line. At $t=0$, the object begins at location $x=0$.



- a. What is the total distance the object travels from $t=0$ to $t=10$? (Remember to answer in a complete sentence.)
- b. What is the total distance the object travels from $t=10$ to $t=16$? (Remember to answer in a complete sentence.)
- c. Based on your calculations above, what is the object's average speed from $t=0$ to $t=16$?

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d. Calculate the slope of the secant line AB. A is the point (2, 2) and B is (12, 4). What is the meaning of this slope?

e. Calculate the slope at point C.
C is the point (10, 6).

2. Explain in a few sentences why this limit exists.

$$\lim_{x \rightarrow 2} \frac{x^2 - 4}{x^2 + x - 6} = \frac{4}{5}$$

You need to mention the discontinuity at $x=2$, the left and the right limits.

3. For a certain function $f(x)$, its table of values near $x=0$ is given below

x	-0.4	-0.3	-0.2	-0.1	0	0.1	0.2	0.3	0.4
f(x)	0.973	0.985	0.993	0.998	0	0.998	0.993	0.985	0.973

Find $\lim_{x \rightarrow 0} f(x)$, and explain why.

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Academic Integrity Student Contract

Plagiarism is presenting someone else's work as though it is your own. Plagiarism may consist of work copied from the Internet, work copied from another student, or work generated by Artificial Intelligence (AI) or other electronic means.

Plagiarism represents a failure of integrity. Plagiarism damages a student's character and limits the student's learning from the course.

VLN has a zero-tolerance policy on plagiarism. We use professional tools to identify plagiarized or AI-generated student submissions.

If you are caught plagiarizing course assignments or cheating on an exam, this incident will be documented in our MyEd provincial student information system. Plagiarism may result in VLN administration meeting with the student and their parents (for school-aged students). Repeated incidents of plagiarism may result in withdrawal from the course or school.

Using a tutor to help you with your studies is perfectly acceptable. However, submitting the tutor's work in an assignment rather than your own work is another example of plagiarism. Most VLN courses have midterm or final exams. If the exam mark is significantly lower than course assignment marks (for example, at least 20% lower), then VLN reserves the right to omit assignment marks from the course assessment and only use the exam mark.

My Pledge to Academic Integrity

Please sign and date the following agreement:

I agree that I will not attempt to plagiarize work in any VLN course assignments or cheat on any VLN exams. I also agree that assignments I submit that are suspected of plagiarism may be scanned, stored, and accessed by US-based servers.

E-Signature

You can simply type in your name

Date

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~The End~

Now you can upload this back into the folder.