

MCV 4U Learning Goals and Success Criteria
Chapter 4: Curve Sketching

Learning Goal	
I will be able to make graphical and algebraic connections between a function and its first and second derivatives and use these connections in curve sketching.	
Success Criteria	
I can: <ul style="list-style-type: none"> • Sketch the graph of the derivative of a function and recognize points of inflection for that function. • Recognize the second derivative as the rate of change of the rate of change and sketch its graph. • Determine the equation of the second derivative algebraically for a polynomial or rational function and make connections between the features of the graph and equation. • Describe polynomial functions given information about the first or second derivative of the function and sketch a possible graph of the function. • Sketch the graph of a polynomial function given the equation using a variety of strategies. 	
Assignment Information:	
Your assignment will be completed on Wednesday, May 13th . It will be sent to you in an Edsby message at the start of class time (9:45 for period 2, 1:00 for period 4). You will have 75 minutes from the time you receive it to have it back to me. It is an open book assessment . There will be a place to submit it on Edsby. Do not send it back as a message unless you want me to lose it. IF YOU NEED TO MAKE ALTERNATE ARRANGEMENTS YOU NEED TO DO THAT BY TUESDAY, MAY 12th ! More details are included below. PLEASE PRACTICE GRAPHING!!!	
There is a more detailed outline below. These are the types of questions you can expect. To prepare well for this, you should (in this order): <ul style="list-style-type: none"> • Review your notes and the video lessons and makes study notes. We learned new vocabulary and lots of theory, so be sure that you actually understand it! • Review/redo your quiz and go through the examples in the notes and be sure that you can do them yourself. TAKE YOUR TIME AND DO ALL OF THE PARTS OF THE QUESTIONS, INCLUDING THE GRAPHING!!! • Get your notes organized so that you can find things quickly. • Complete questions in the suggested review that you think you need to do. The text book should be your last stop, not your first! 	
What to Expect	<ul style="list-style-type: none"> • Sketch a possible graph of $f(x)$ given a graph of $f'(x)$ and explain your thinking. • Short answer question explaining a part of the theory covered in this chapter (limits at infinity, equations of oblique asymptotes, first or second derivative test, etc.) • Solve for a, b, c, d, k, etc. given a function and points. • Sketch the graph of a function using the processes covered in class for curve sketching. You must include all components (behaviour at asymptotes, intercepts, turning points, intervals of increase/decrease, concavity, etc.)
Text book Questions:	p. 216 #1 – 3, 5, 8, 10, 12 – 15 p. 220 #2, 4, 6, 7