

Summary of Videos for AP Physics C Prep, Day 7

#	Publisher	Title	Content	Time	
2	Kahn Academy	Minima, maxima and critical points	overview <ul style="list-style-type: none"> • non-rigorous definitions of key vocabulary <ul style="list-style-type: none"> ○ minima, maxima, local, global, interval ○ critical point 	7	52
3	The Infinite Looper	Calculus I – Intro to Mins and Maxes – Part 1 of 2	Vocab – rigorous definition w/ pictures <ul style="list-style-type: none"> • local/relative min/max • global/absolute min/max • phrasing: local min at $x = 2$ is $y = 5$ 	16	04
4	The Infinite Looper	Calculus I – Intro to Mins and Maxes – Part 1 of 2 with Example 1	Vocab – rigorous definitions w/ pictures <ul style="list-style-type: none"> • Extrema/extreme • why you can't do a local min/max at an endpoint 	7	43
5	The Infinite Looper	Calculus I – Mins and Maxes – Examples 5 and 6 – Also Tricky (kind of)	Examples <ul style="list-style-type: none"> • Local mins and maxes on a discontinuous function 	7	24
6	The Infinite Looper	Calculus I – Intro to Critical Points (with Visual Examples)	Formal definition of a critical point Local mins and maxes have to be critical points <ul style="list-style-type: none"> • critical points do not have to be local mins/maxes • visual examples of critical points Simple examples of <ul style="list-style-type: none"> • finding critical points <ul style="list-style-type: none"> ○ critical points where $f'(x) = 0$ ○ critical points where $f'(x)$ DNE ○ checking that critical points are in the domain • classify critical points as min/max/neither by graphing 	24	55
7	Hector Villasenor	Find critical points	simple examples of finding critical points	2	44
8	The Infinite Looper	Calculus I – Increasing/Decreasing Functions and the 1 st Derivative (with Examples 1)	Definitions of increasing and decreasing <ul style="list-style-type: none"> • Visual illustration Connecting increasing/decreasing behavior w/ 1 st derivative Sign charts	25	26
9	IntegralCALC	First Derivative Test	Quick review of critical point classification Process-level description of the 1 st derivative test	12	55
10	patrickJMT	Increasing/Decreasing, Local Maximums/Minimums	Review of definitions <ul style="list-style-type: none"> • increasing vs decreasing • local max and min Eliminate or move earlier; ahead of 1 st derivative/CP discussion	5	17
11	patrickJMT	Increasing/Decreasing + Local Max and Mins using First Derivative Test	process of 1 st derivative test w/ examples finding and classifying critical points local minima based on 1 st derivative	10	19
12	Joseph McRae	Maxima & Minima Sample Problem	Example problem of finding and classifying critical points/1 st derivative test	8	59