

Math 2215 - Calculus 1

Quiz #15 - 2017.10.17

Solutions

If $f(x)$ has one of the properties along the first row of the following table, mark which properties in the first column are similarly satisfied ALWAYS with the given property of $f(x)$ in the given column. There may be more than one possible entry per column.

	root	increasing	decreasing	conc. up	conc. down	local max	local min	crit. pt.	infl. pt.
$f(x) = 0$	X								
$f(x) > 0$									
$f(x) < 0$									
$f'(x) = 0$						X	X	X	
$f'(x) > 0$		X							
$f'(x) < 0$			X						
$f''(x) = 0$									X
$f''(x) > 0$				X			Y		
$f''(x) < 0$					X	Y			

Credit will be given to those who marked off boxes with the Y's in them. Note however, One can have a local max or local min with $f''(x) = 0$, as the second derivative test can be inconclusive. This table also did not include a $f'(x)$ DNE or $f''(x)$ DNE, but we ran out of room for those.