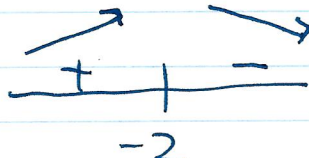


Curve Sketching Example!

When finding where a given function has a relative min or relative max you take the derivative & set it equal to zero. Then you find if the derivative is positive or negative. That determines if it is a min or max.

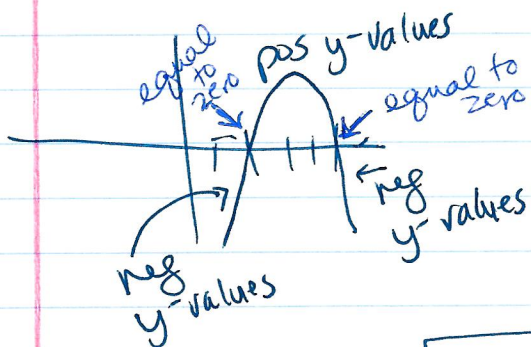
For example $f'(x)$



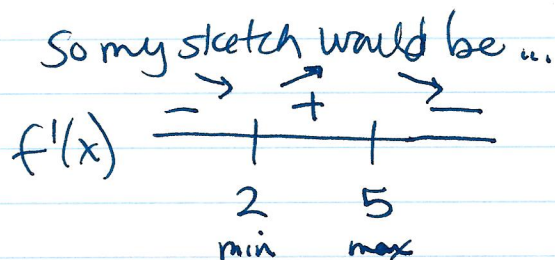
If the derivative is equal to zero at -2 and is positive to the left & negative to the right then your sketch would be as above. Since it is increasing (where $f'(x)$ is pos) then decreasing (where $f'(x)$ is neg) that means there is a relative max at $x = -2$.

Application:

Given the graph of $f'(x)$, find where $f(x)$ has relative mins/maxs.



So my sketch would be ...



relative min at $x = 2$, relative max at 5