







Graphical Analysis Cheat-Sheet:

Not Fun Chart

f'	+	-
f		

FUN Chart

f''	+	-
f'		
f		

- If $f'(x)$ is **positive (greater than zero)** $f(x)$ is **increasing**
If $f'(x)$ is **negative (less than zero)** $f(x)$ is **decreasing**
If $f'(x)$ is **changing from $+$ \rightarrow $-$** $f(x)$ **maximum**
If $f'(x)$ is **changing from $-$ \rightarrow $+$** $f(x)$ is **minimum**
If $f'(x)$ is **increasing** $f(x)$ is **concave up**
If $f'(x)$ is **decreasing** $f(x)$ is **concave down**
If $f'(x)$ is **changing from inc \rightarrow dec** $f(x)$ **inflection point**