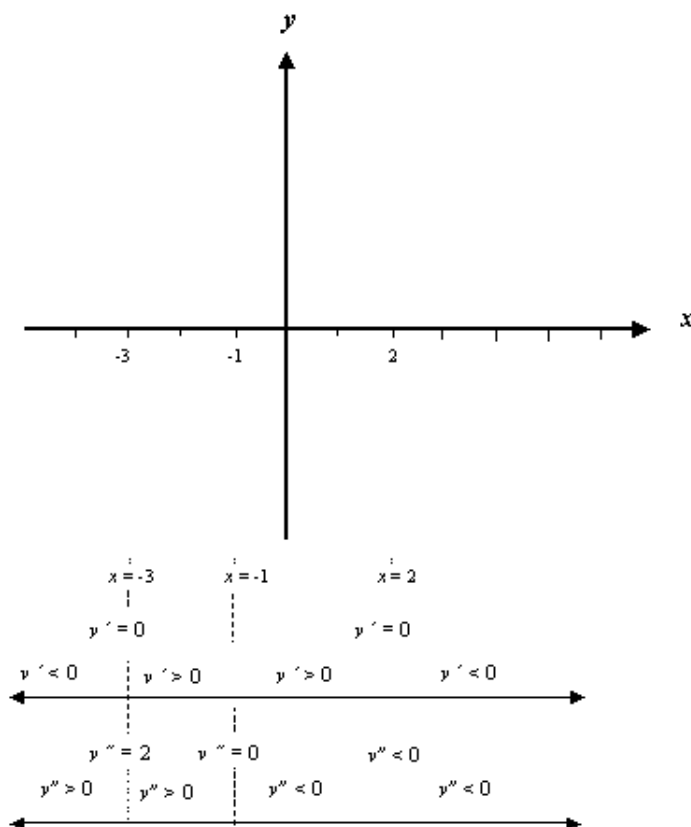


8. (12 points) (a) On the axes provided, sketch a possible graph of a function $y = f(x)$ using the given information about the derivatives $y' = f'(x)$ and $y'' = f''(x)$. Assume that the function is defined for all values of x .



(b) List all values of x where f has, or could have, a local minimum, local maximum, or an inflection point.

Local Minimum _____ Local Maximum _____ Inflection Point(s) _____

(c) (Still referring to the function of part (a)). How many distinct zeros COULD there be of a function with the properties in part (a)? (Circle ALL correct answers).

None 1 2 3 4 5 6 7 8 9 infinitely many