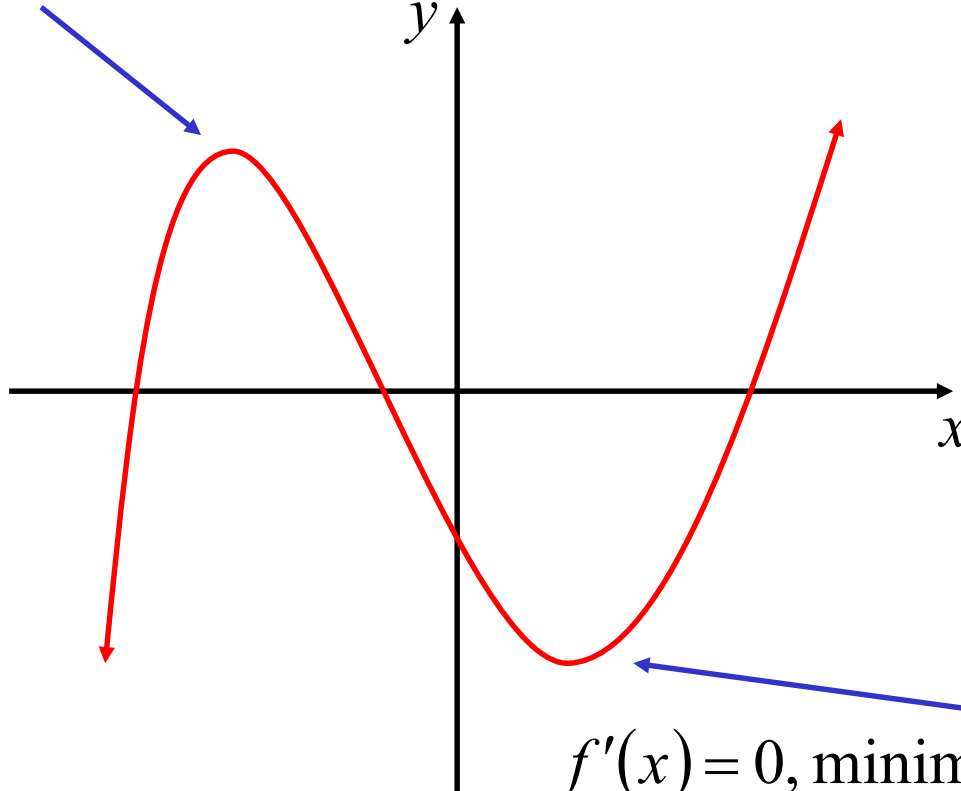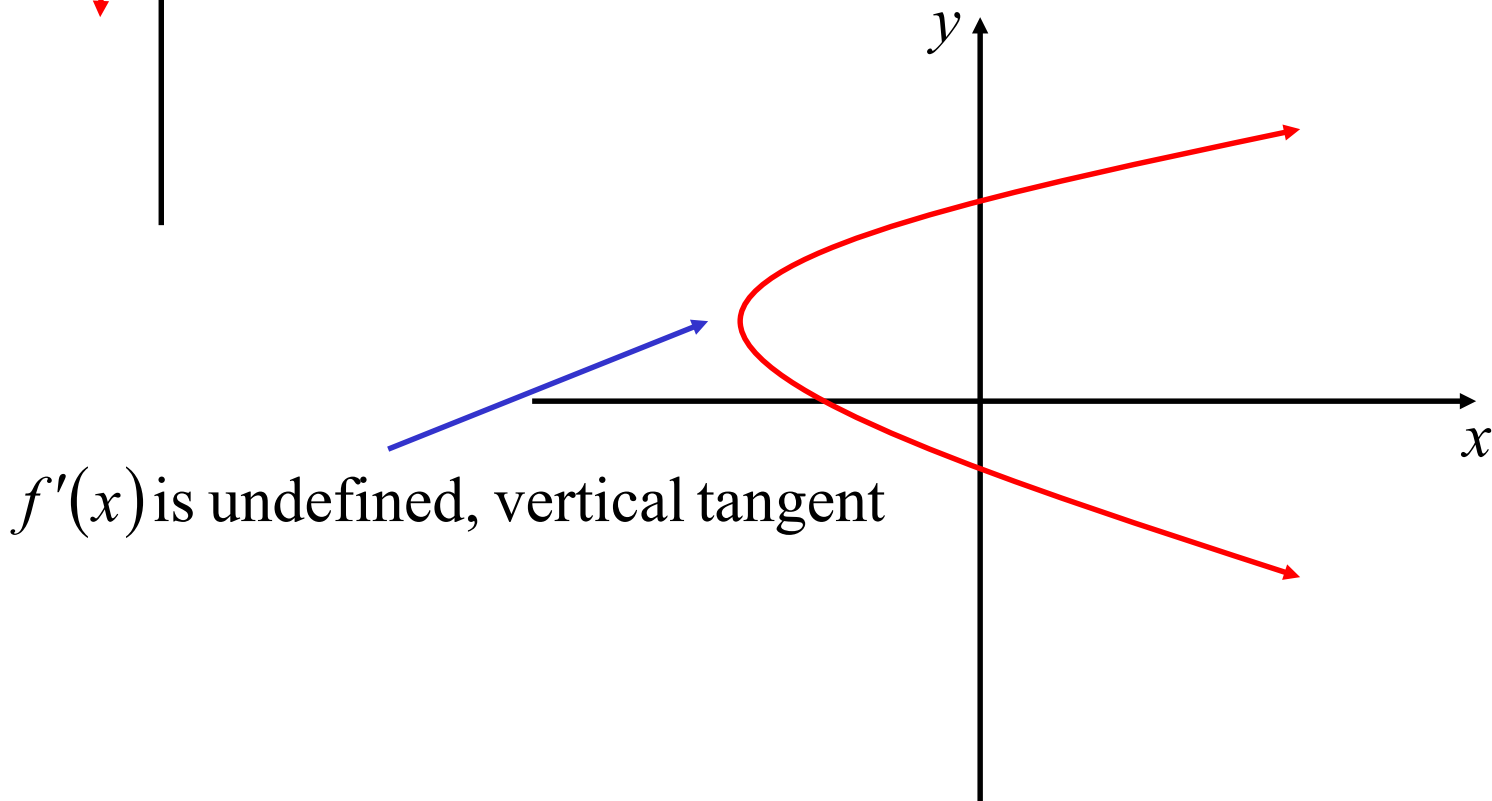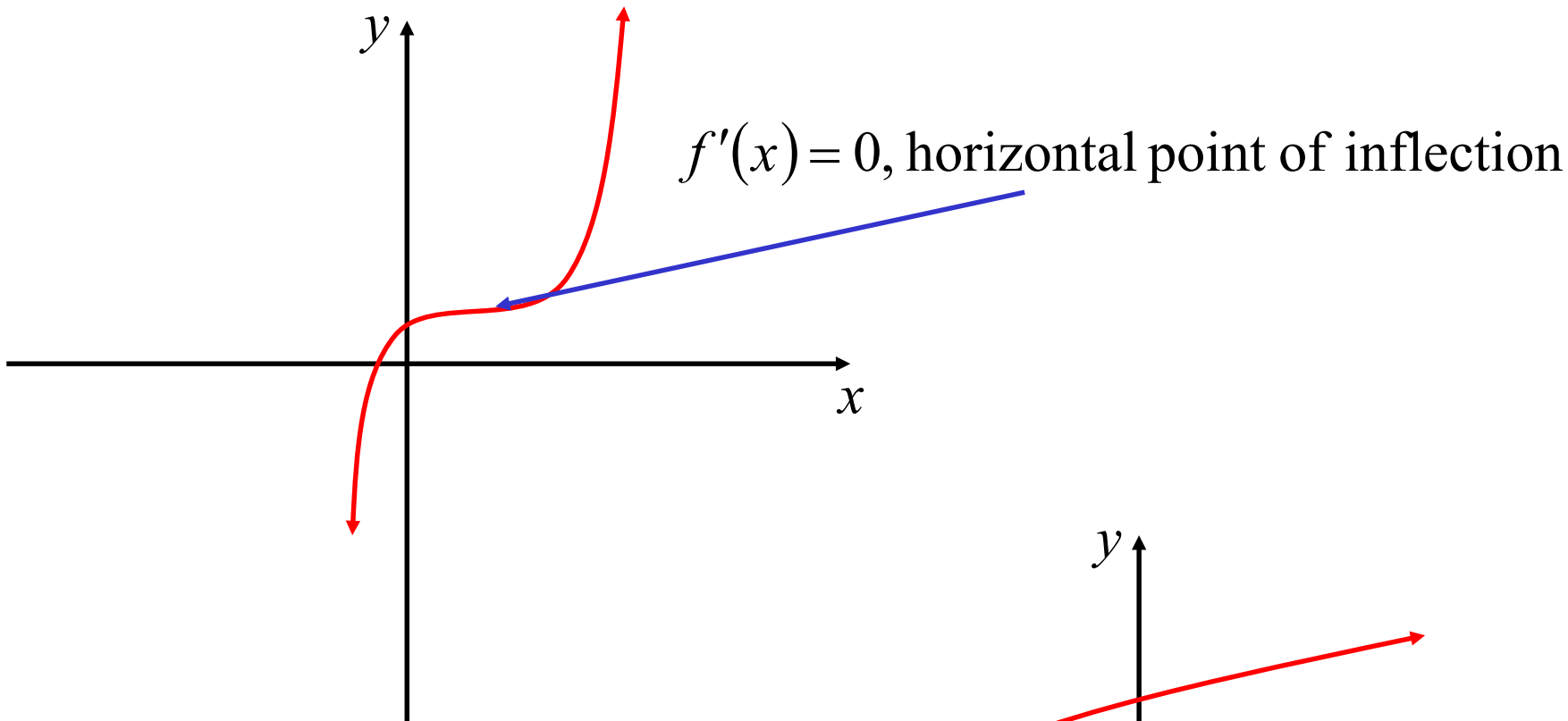# *Critical Points*
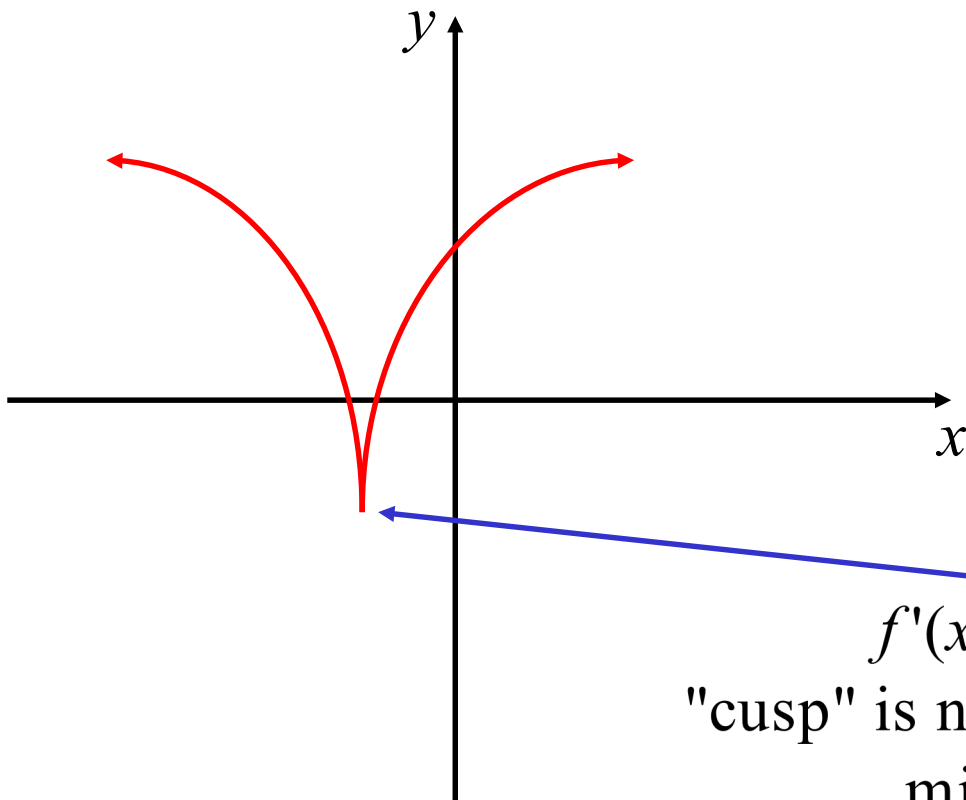
Critical points occur when $\dfrac{dy}{dx} = 0$ or is undefined

$f'(x) = 0$, maximum turning point

$f'(x) = 0$, minimum turning point

$f'(x) = 0$, horizontal point of inflection

$f'(x)$ is undefined, vertical tangent

$f'(x)$ is undefined
"cusp" is not smooth continuous
minimum point

**Exercise 4C; 1, 2ace etc, 3, 5ad, 6, 8, 9, 11, 12, 13**