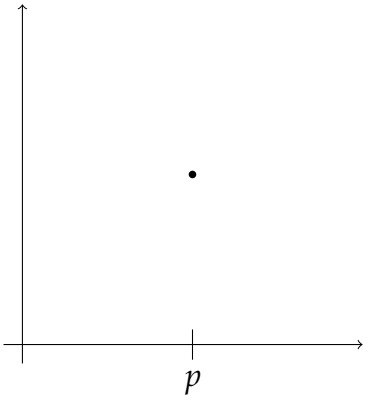
Lecture Handout #17: Oct 27

Second Derivative Test

$f'(p) = 0$: p a critical point of $f(x)$

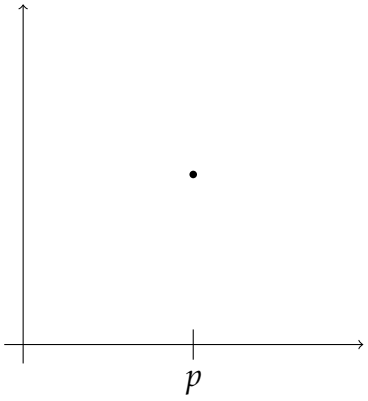
$f''(p) > 0$



f'	0
f''	

behvaior: local _____

$f''(p) < 0$



f'	0
f''	

behvaior: local _____

Understanding Functions: Local Minima and Maxima, Inflection Points

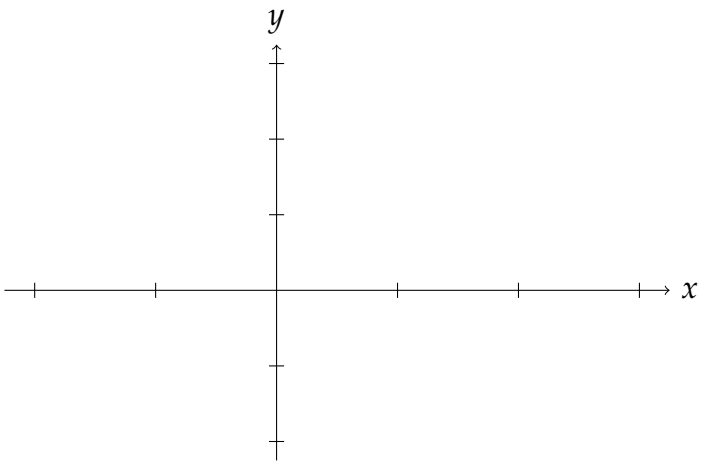
$f(x) =$ $x^3 - 3x^2 - 9x + 15$

$f'(x) =$ _____

$f''(x) =$ _____

critical point(s): $x =$ _____

inflection point(s): $x =$ _____



intervals of increase: _____ intervals of decrease: _____

local maxima: _____ local minima: _____