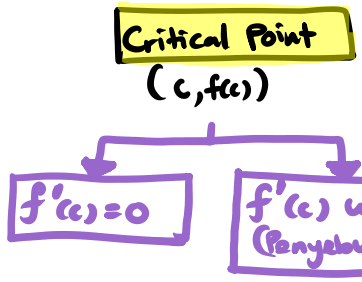
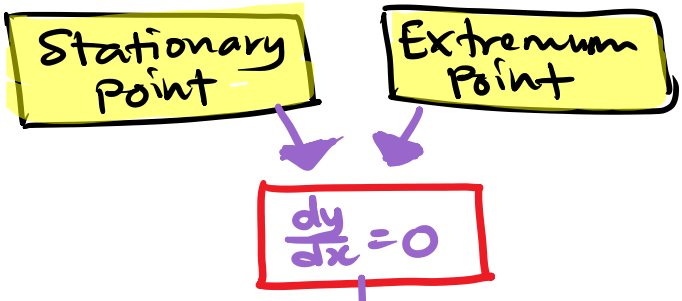




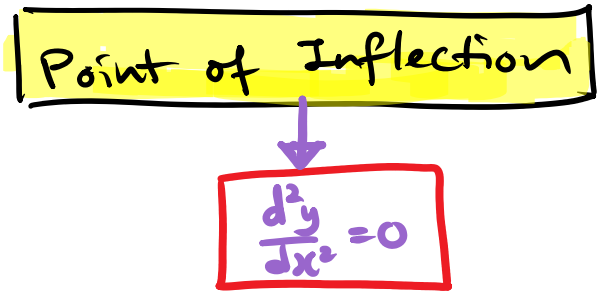
Interval of x	$(-\infty, x_1)$	(x_1, x_2)	(x_2, ∞)
$\frac{dy}{dx}$	+	−	+
graph f	increase	decrease	increase

$(x_1, f(x_1))$ maximum point.
$(x_2, f(x_2))$ minimum point.

$\frac{d^2y}{dx^2} > 0$ (minimum point)

$\frac{d^2y}{dx^2} < 0$ (maximum point)

$\frac{d^2y}{dx^2} = 0$ (might be point of inflection)



Interval of x	$(-\infty, x_1)$	(x_1, ∞)
$\frac{d^2y}{dx^2}$	+	−
graph f	concave up	concave down

$\therefore$ $(x_1, f(x_1))$ is a point of inflection.