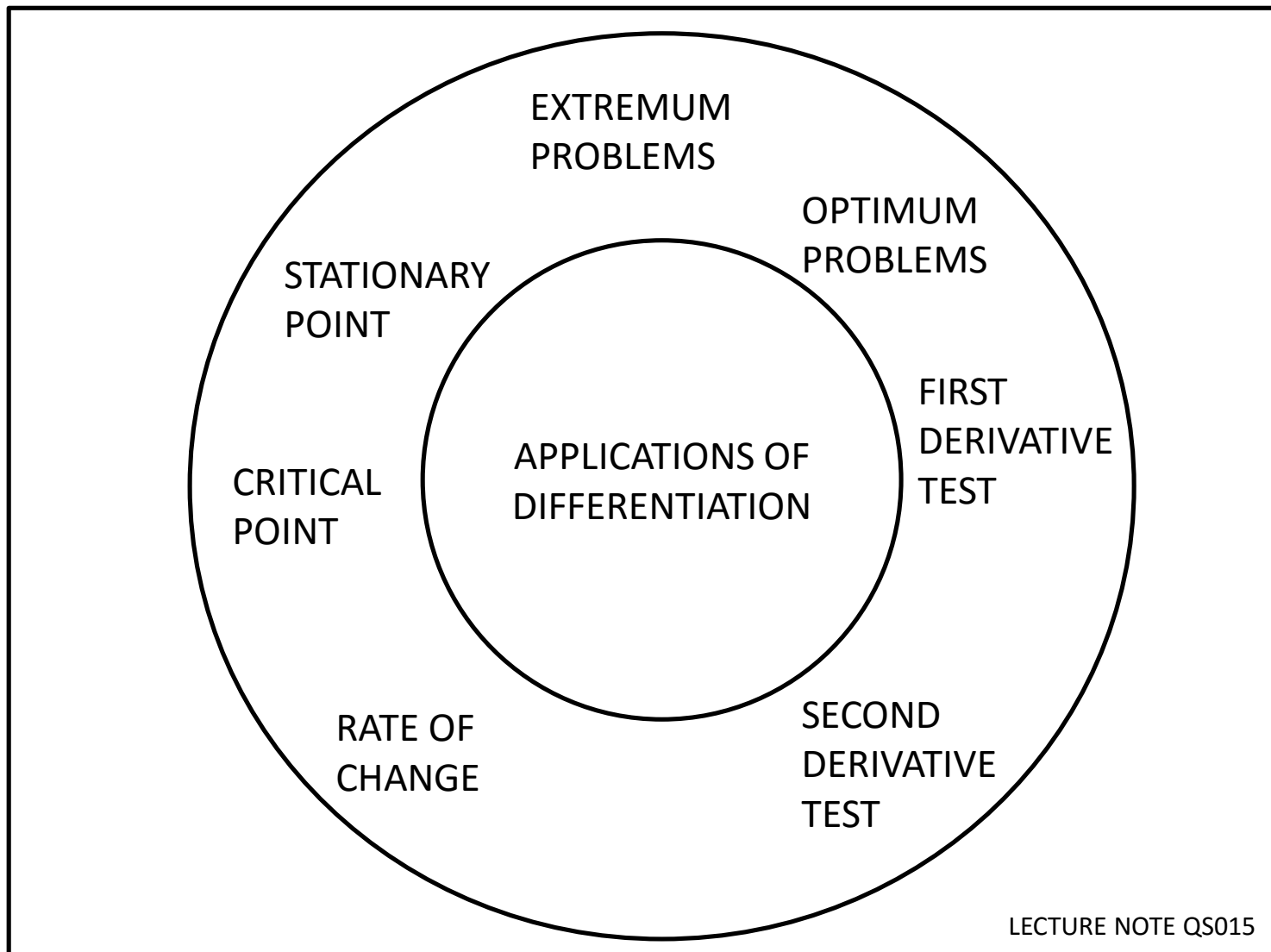


**TOPIC: APPLICATIONS OF DIFFERENTIATION**

**THINKING MAP : CIRCLE MAP**

**THINKING PROCESS : DEFINING IN CONTEXT**



**TOPIC: APPLICATIONS OF DIFFERENTIATION**

**THINKING MAP: TREE MAP**

**THINKING PROCESS: CLASSIFICATION, CATEGORIES**

**FIRST DERIVATIVE TEST**

**LOCAL MAXIMUM**

$f'(x) > 0$  for  $[a, c]$  and  
 $f'(x) < 0$  for  $[c, b]$   
 $\therefore f(x)$  has local maximum  
at  $c$

**LOCAL MINIMUM**

$f'(x) < 0$  for  $[a, c]$  and  
 $f'(x) > 0$  for  $[c, b]$   
 $\therefore f(x)$  has local minimum  
at  $c$

**NO LOCAL EXTREMUM**

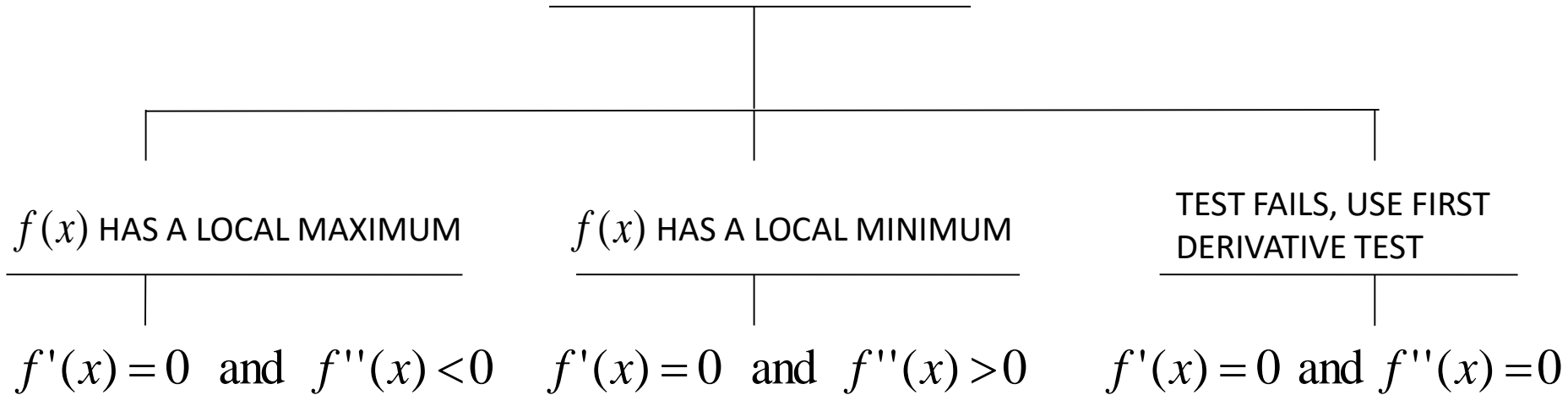
$f'(x)$  does not change

**TOPIC: APPLICATIONS OF DIFFERENTIATION**

**THINKING MAP: TREE MAP**

**THINKING PROCESS: CLASSIFICATION, CATEGORIES**

**SECOND DERIVATIVE TEST**



TOPIC: APPLICATIONS OF DIFFERENTIATION

THINKING MAP: FLOW MAP

THINKING PROCESS: SEQUENCES, STEP

