

To help you organize the theory in section 4.3,  
fill in the blank entries below that relate how certain properties of  $f'$  and/or  $f''$  correspond to properties of  $f$ .

Some entries have been filled in as examples.

Some entries should be blank.

$f''$	$f'$	$f$
		is increasing on $(a, b)$
		is decreasing on $(a, b)$
<b>BLANK</b>		has a critical number at $c$
		has a local maximum at $c$
$f'(c) = 0$ and $f''(c) > 0$	$f'(c) = 0$ or undefined and $f'$ changes from negative to positive at $c$	has a local minimum at $c$
		is concave up on $(a, b)$
		is concave down on $(a, b)$
		has an inflection point at $c$