

SATPREP

Interpretation of Curve and derivative curve

Feature	the function
$y' > 0$	is increasing
$y' < 0$	is decreasing
y' changes $-$ to $+$	has a local minimum
y' changes $+$ to $-$	has a local maximum
y' increasing	is concave up
y' decreasing	is concave down
y' extreme value	has a point of inflection

Conclusion	Justification
y is increasing	$y' > 0$
y is decreasing	$y' < 0$
y has a local minimum	y' changes $-$ to $+$
y has a local maximum	y' changes $+$ to $-$
y is concave up	y' increasing
y is concave down	y' decreasing
y has a point of inflection	y' extreme values

