



seasonal derivative

The geometric interpretation of  $f''$ :



# second derivative

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2. If  $f''(x) < 0$  then the slope of the tangent line is decreasing in value  
 $\implies$  if  $f'(c) = 0$  and  $f''(c) < 0$ , then around  $c$ ,  $f(x)$  is a hump  
 $\implies$  we can expect a local maximum value of  $f$  at  $c$

possible shapes:



second derivative

$c$

$c$