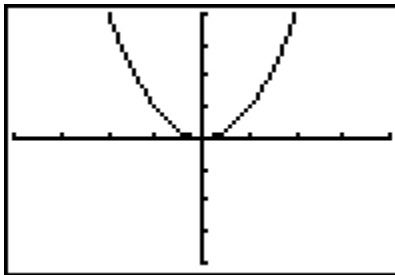


Evaluating the Derivative on the TI-83/84

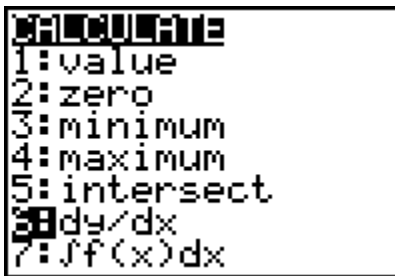
The TI-83/84 has a feature that allows you to find the approximate value of the derivative of a function at a given point on the graph of the function.

Find the derivative of $y = x^2$ at $x = 1$ [In other words, find $f'(1)$] using the dy/dx feature by following the procedure below.

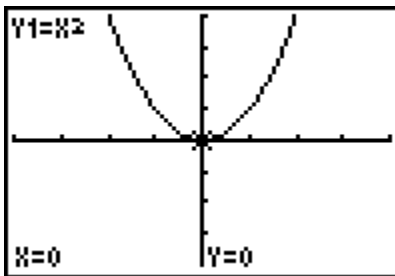
- Graph $Y_1 = X^2$ in a $[-4, 4, 1] \times [-4, 4, 1]$ window.



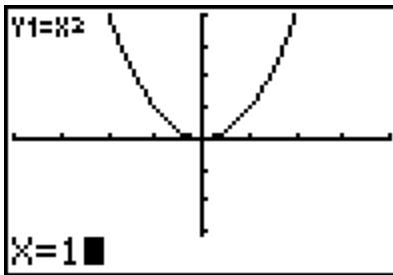
- Open the Graph screen's CALCULATE menu by pressing $\boxed{2nd}$ [CALC].



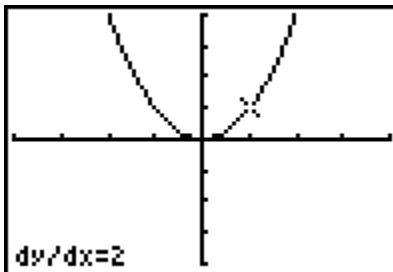
- Select 6:dy/dx.



- Enter the x-coordinate of the point of tangency ($x = 1$) by pressing $\boxed{1}$.



- Execute the command by pressing **ENTER**.



The approximate value of the derivative of $y = x^2$ at $x = 1$ is 2, as shown at the bottom of the screen.

So $f'(1) = 2!$