

e^x -ploration

Name _____ PER _____ DATE _____

Using a graphing calculator, graph the function $Y_1 = e^x$

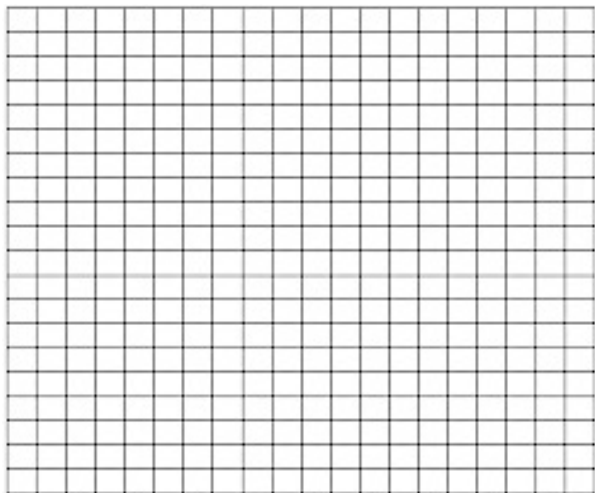
Using the CALC \rightarrow dy/dx function, find the equations for three tangent lines at three points ($x = 0$, $x = 1$, $x = 2$)

Using the grid on the right, predict what the derivative of e^x looks like and draw it.

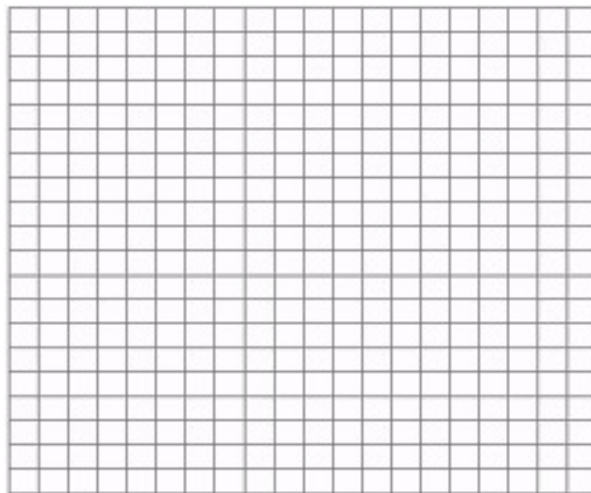
What do you notice about the two graphs? _____

Make a conjecture by completing the sentence below:

The derivative of e^x is _____



$Y_1 = e^x$



The derivative of e^x