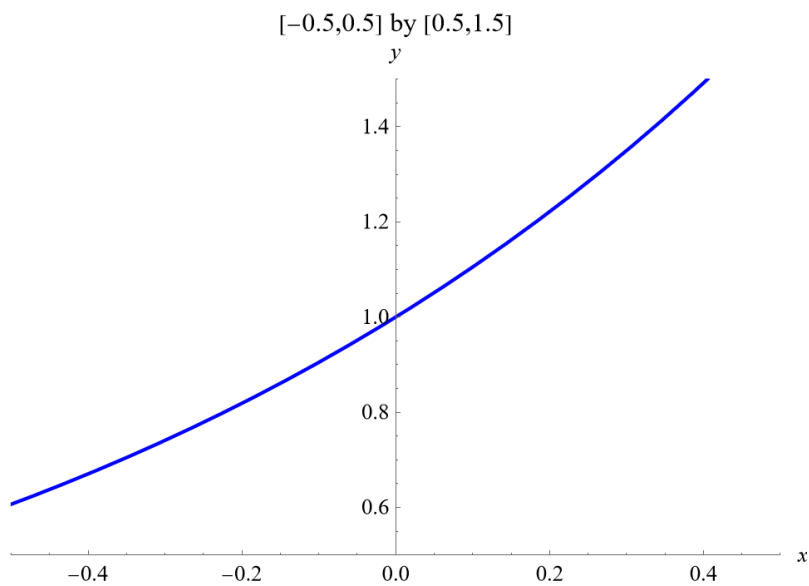
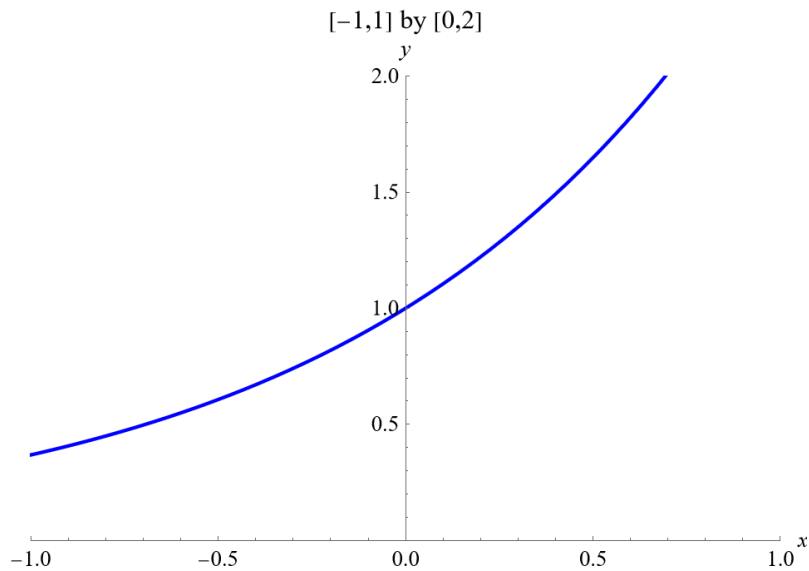


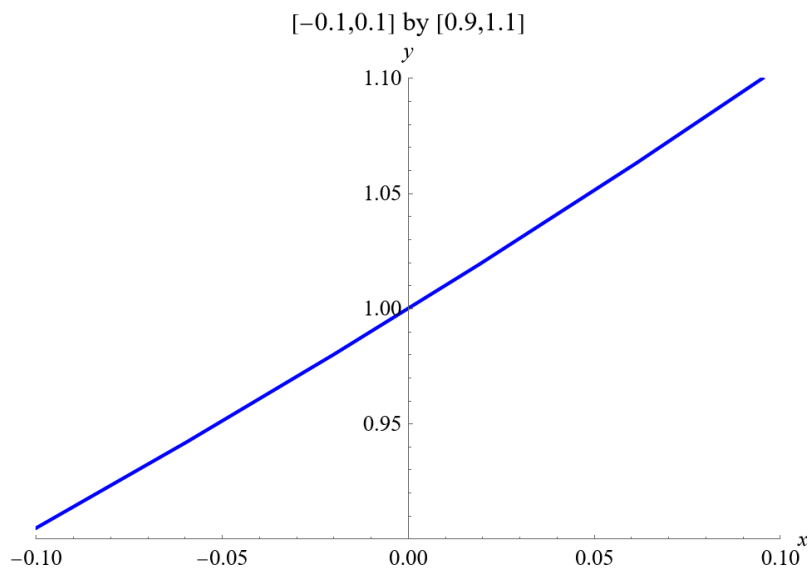
Exercise 2

Graph the curve $y = e^x$ in the viewing rectangles $[-1, 1]$ by $[0, 2]$, $[-0.5, 0.5]$ by $[0.5, 1.5]$, and $[-0.1, 0.1]$ by $[0.9, 1.1]$. What do you notice about the curve as you zoom in toward the point $[0, 1]$?

Solution

Below are plots of $y = e^x$ versus x for several viewing windows.





The curve looks more and more like a line with a slope of 1 passing through the point $(0, 1)$ as you zoom in.