16. ASYMPTOTES

A. Horizontal asymptotes

For a graph with a horizontal asymptote, if you trace along the curve, say to the right, when the cursor moves off the screen, the graph shifts to the left to keep the cursor on the screen. If you trace far enough, the graph will look like a horizontal line, the asymptote. If you have entered $y=\text{constant}$ to graph the asymptote, then eventually, you will be unable to distinguish the graph from the line.

You can also see the asymptote by zooming out in the x direction. Set the y zoom factor (GRAPH/ZOOM/ZFACT) equal to 1 and the x factor 4 or 5. Then zoom out. If you zoom far enough all you see is a horizontal line.

If you zoom out once, you do not have to go back into the ZOOM menu to zoom out again; just press ENTER.

You should probably set xScl=0 so the tic marks do not clutter the x-axis.