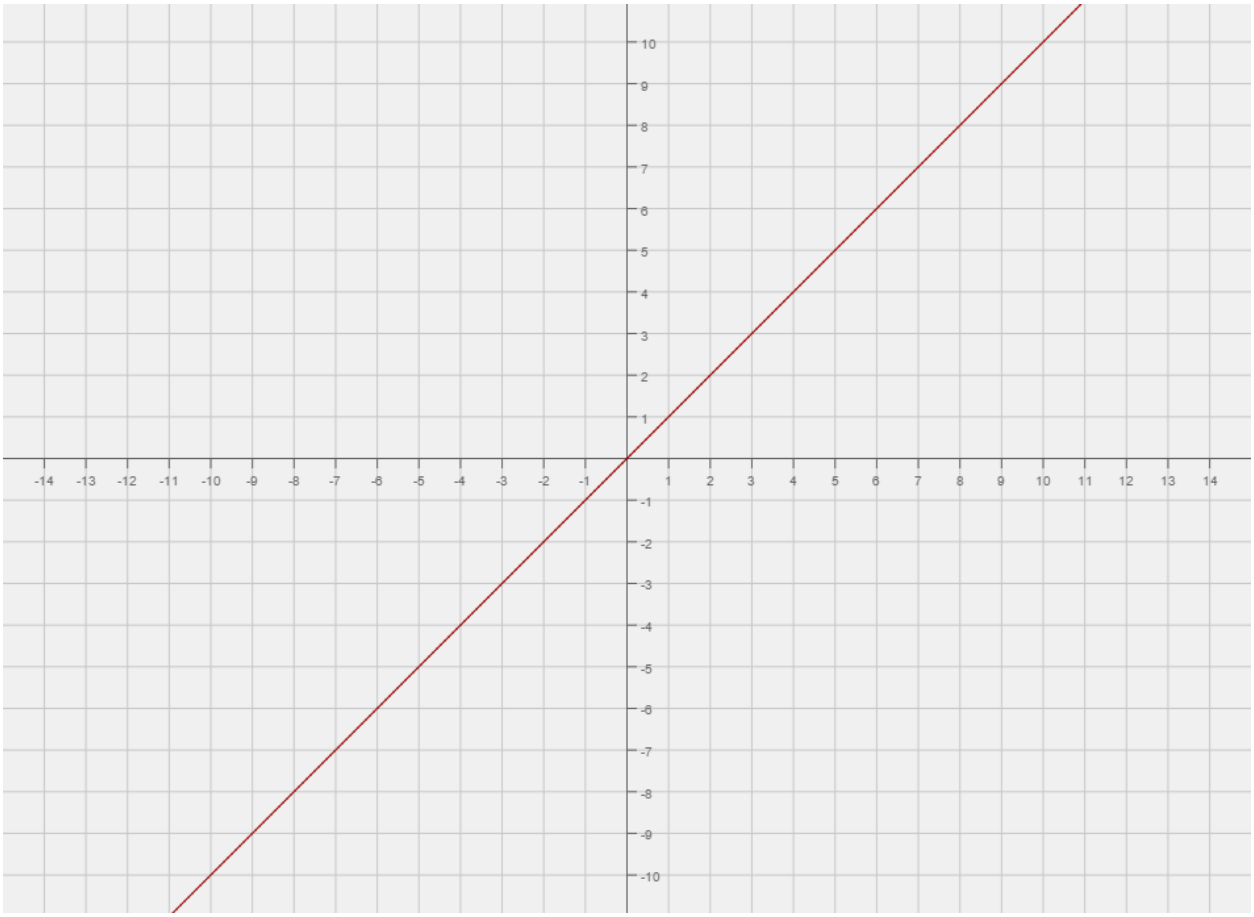
Answer on Question #50805 – Math – Differential Calculus | Equations

what can be the graph of a curve where there is no maxima and minima?

Solution.

The simplest example: in $y = 1$, where *x* is an arbitrary real number, all values are equal, so the maximum coincides with the minimum.

In $y = x$, where *x* is an arbitrary real number, there is no maxima and minima (they are infinite). Here is a sketch of graph:



More examples: $y = x^{2k+1}$, $y = a^x$, $y = lnx, y = \frac{1}{x}$ *and so on*.