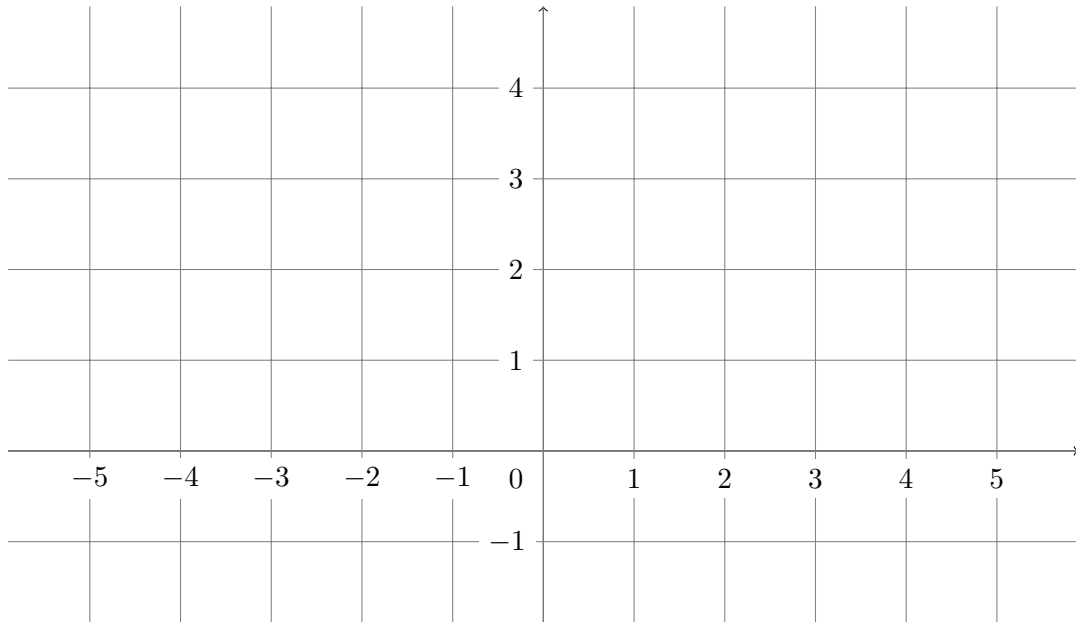


1. (6 pts) On the following axes, sketch a careful graph of the function  $y = \sqrt{x+4}$ . Sketch and clearly mark the line tangent to the graph at  $x = 0$ , and also sketch a few secant lines that approach this tangent.



2. (4 pts) What is the slope of the secant line from  $x = 0$  to  $x = 5$ ? Is this greater or less than the slope of the tangent at  $x = 0$ ?

3. (bonus) On the back of this page, explain whether there exists a secant line to the curve with the same slope as the tangent line at  $x = 0$ .