

1.) Let  $f(x) = x^2 + 3$ . Calculate  $f'(1)$  and write the equation for the tangent line at  $x=1$ . Sketch the graph of the function and the tangent line to check for consistency of your work.

2.) Let  $f(x) = 1/x^2$ . Calculate  $f'(-1)$  and write the equation for the tangent line at  $x=-1$ . Sketch the graph of the function and the tangent line to check for consistency of your work.