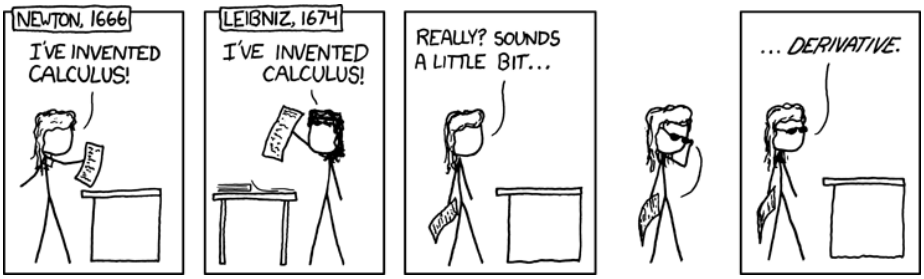
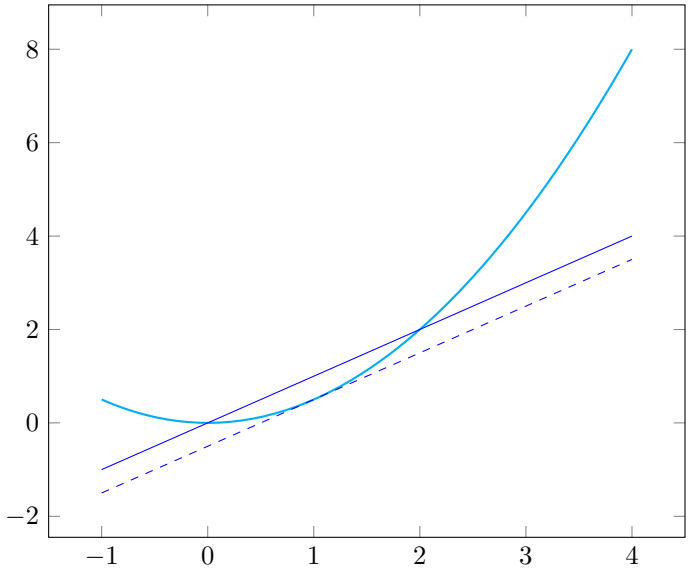


Slopes It is useful and easy to find the rate of change for any point on a line. It is difficult to approximate how a curved function changes, however. Functions that aren't lines don't have defined slopes and we have to use a tangent line to find the slope at a point. It is difficult to find the tangent line at a point, so we must resort to finding secant approximations for the tangent line.



The secant line $y = x$ approximates the dashed line tangent to the graph $f(x) = \frac{1}{2}x^2$ for the point $x = 1$.