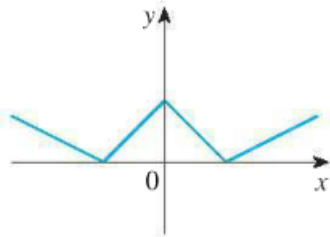
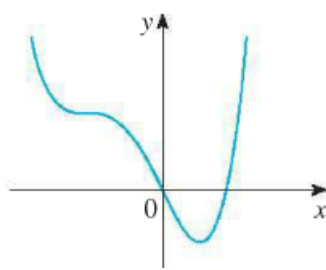


#s 1 – 3: Trace or copy the graph of the given function  $f$ . Assume that the axes have equal scales. Sketch the graph of  $f'$  just below it.

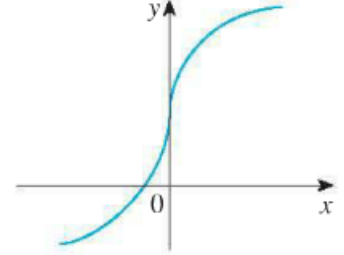
1.



2.



3.



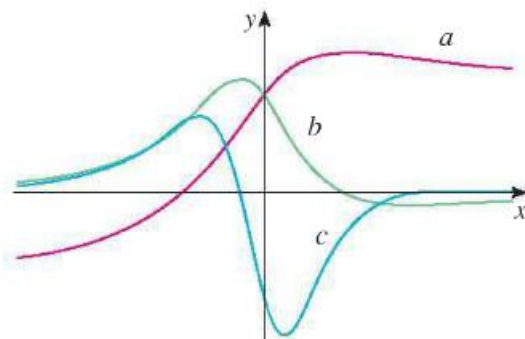
#s 4 - 6: Find the derivative of the function using the definition of derivative. State the domain of the function and the domain of its derivative.

4.  $f(x) = \frac{1}{2}x - \frac{1}{3}$

5.  $f(x) = x^2 - 2x^3$

6.  $g(t) = \frac{1}{\sqrt{t}}$

7. The figure shows the graphs of  $f$ ,  $f'$ , and  $f''$ . Identify each curve, and explain your choices.



8. The figure shows the graphs of three functions. One is the position function of a car, one is the velocity of the car, and one is its acceleration. Identify each curve, and explain your choices.

