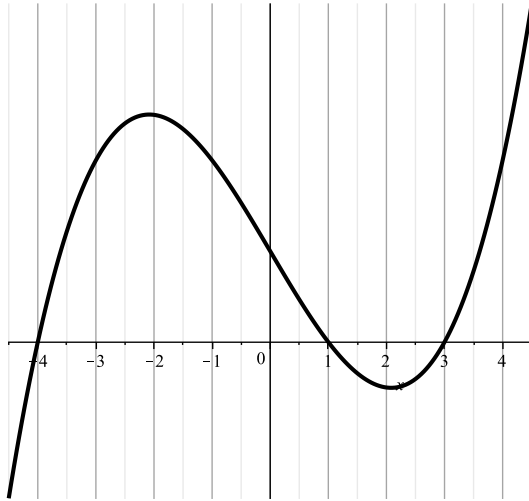
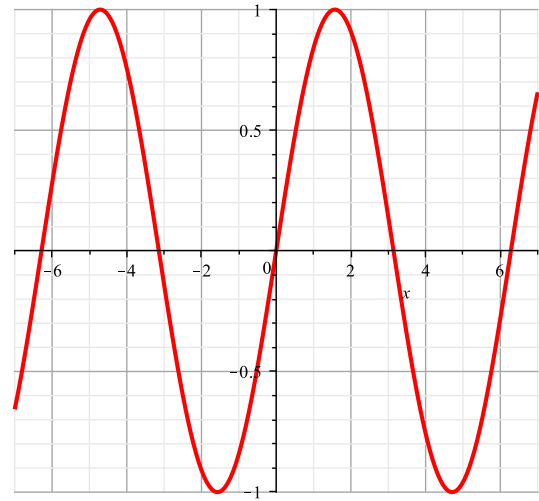
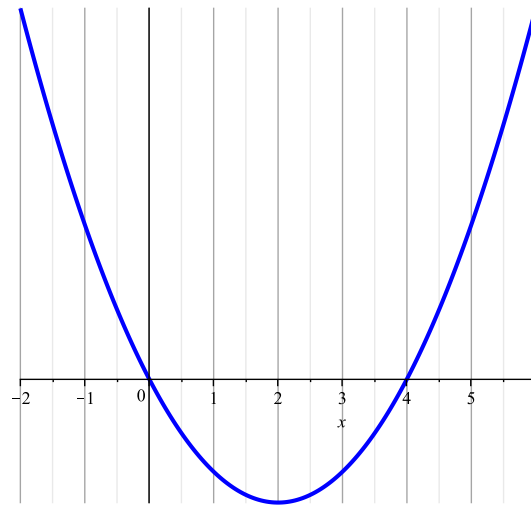


1. The graphs below represent  $y = f(x)$  and  $y = g(x)$ .  
 Sketch the graph of the derivative function  $y = f'(x)$  on the same set of axes as  $y = f(x)$ .  
 Do the same for  $y = g'(x)$  of the same axes as  $y = g(x)$ .

Graph of  $y=f(x)$ Graph of  $y=g(x)$ 

2. The graph below represents the graph of the derivative function  $y = f'(x)$ .  
 On this set of axes, sketch a possible graph for the original function  $y = f(x)$ .

Graph of  $y = f'(x)$ 

3. Let  $f(x) = x^3$ . Use the definition of the derivative to find  $f'(x)$ .  
 4. Let  $g(x) = x^3 - 4x$ . Use the definition of the derivative to find  $g'(x)$ .