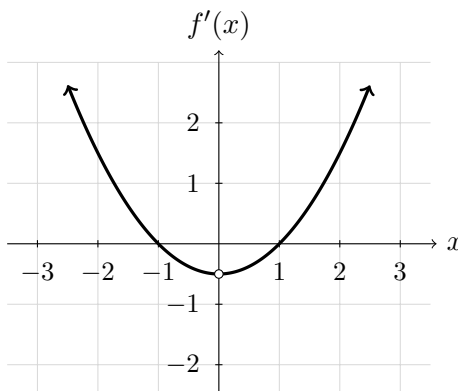


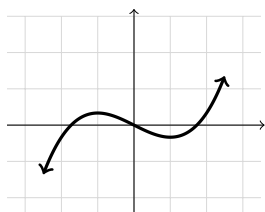
1. (2 points) The graph of  $f'(x)$  is shown. Which of the following graphs could be a graph of  $f(x)$ ?



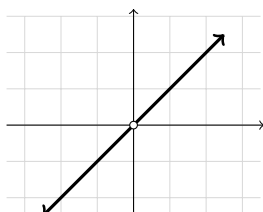
$f(x)$ :

① inc. dec. dec. inc.  
-1 0 1

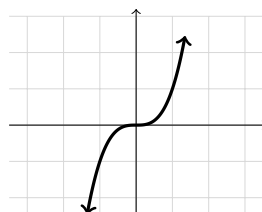
② Not differentiable at 0



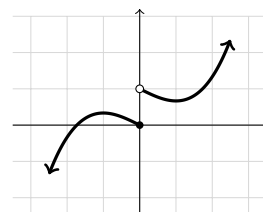
(a)



(b)

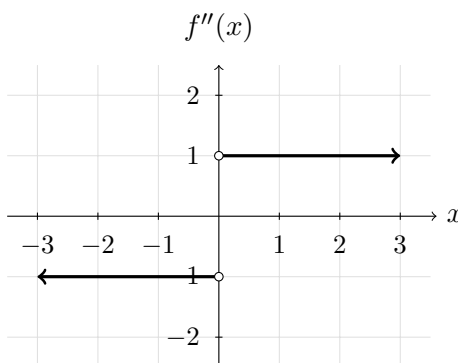


(c)



(d)

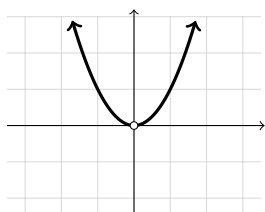
2. (2 points) The graph of  $f''(x)$  is shown. Which of the following graphs could be a graph of  $f(x)$ ?



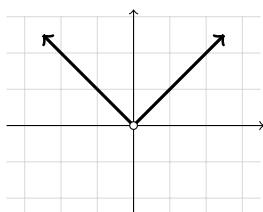
$f(x)$ :

① Concave down Concave up  
0

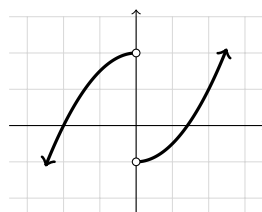
②  $f''$  is undefined at 0



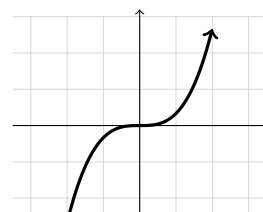
(a)



(b)

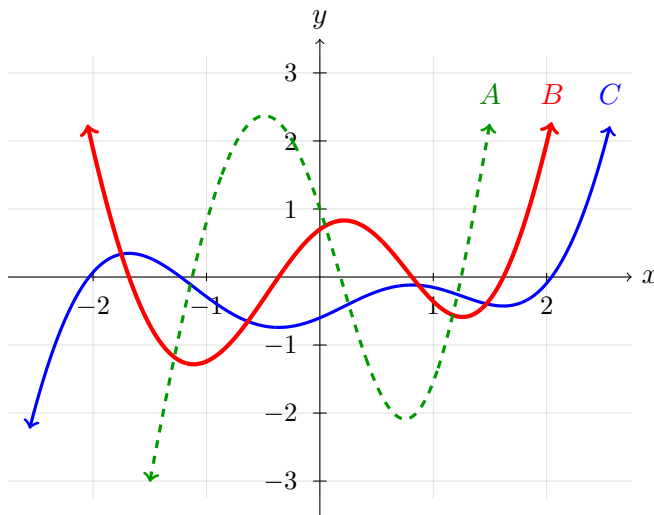


(c)



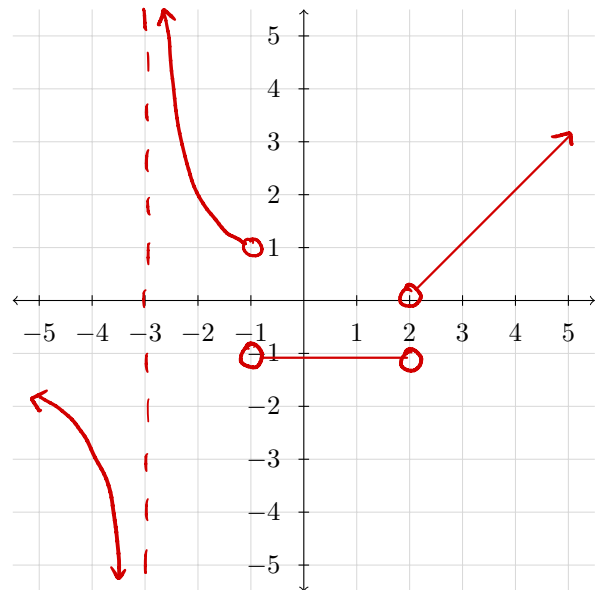
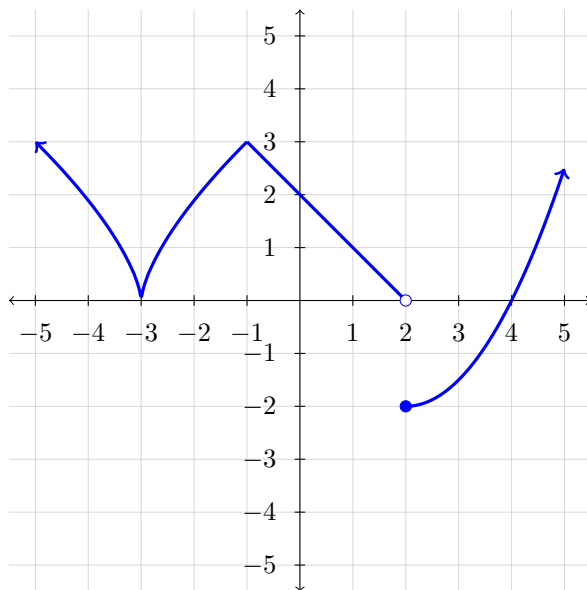
(d)

3. (2 points) Using the given graph, determine which function shown is the original function  $f(x)$ , which is the first derivative  $f'(x)$ , and which is the second derivative  $f''(x)$ .



- (a)  $f(x)$  is A,  $f'(x)$  is B, and  $f''(x)$  is C.  
 (b)  $f(x)$  is B,  $f'(x)$  is A, and  $f''(x)$  is C.  
 (c)  $f(x)$  is B,  $f'(x)$  is C, and  $f''(x)$  is A.  
 (d)  $f(x)$  is C,  $f'(x)$  is A, and  $f''(x)$  is B.  
 (e)  $f(x)$  is C,  $f'(x)$  is B, and  $f''(x)$  is A.

4. (2 points) Given the following graph of the function  $f(x)$ , sketch the graph of  $f'(x)$ .



5. (2 points) Do you have any questions or comments about the course so far?

I love MATH 1300!