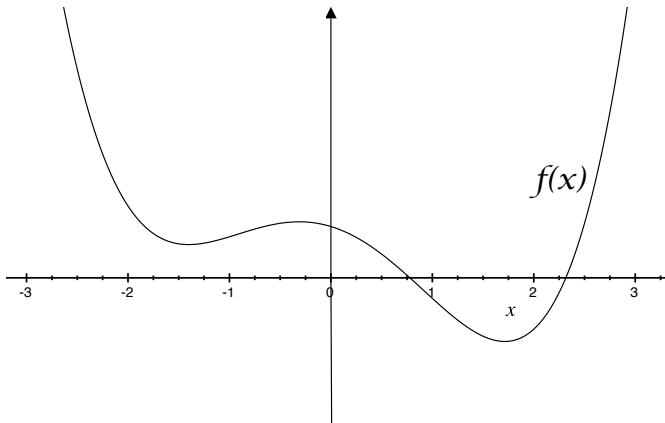


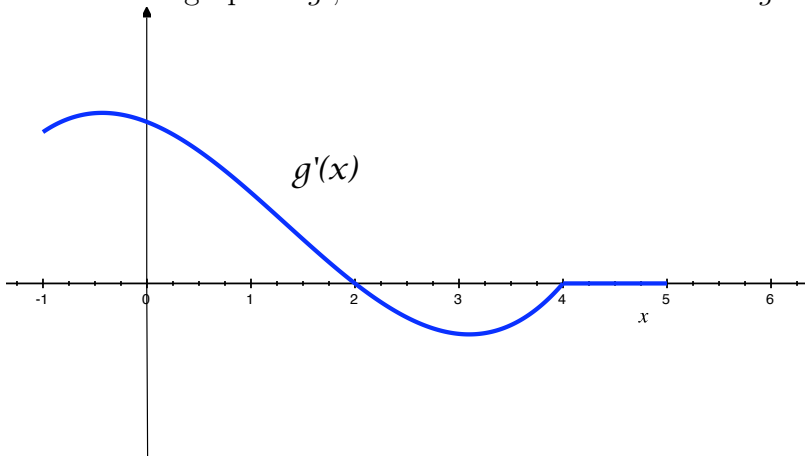
Name: \_\_\_\_\_

**Math 112 Worksheet #2**  
**January 19, 2007**

1. Sketch the graph of  $f'(x)$ .



2. Below is the graph of  $g'$ , the derivative of the function  $g$ .



- (a) On what interval(s) is the function  $g$  increasing, decreasing, or constant?
- (b) On what approximate interval(s) is  $g''$ , the second derivative of  $g$ , positive or negative?
3. The cost  $C$  (in thousands of dollars) of growing  $x$  acres of corn is given by the function  $C = h(x)$ .
- (a) Suppose  $h(100) = 37.6$  and  $h'(100) = .35$ . Interpret each of these statements in terms of the cost of growing corn. What are the units of  $h'(100)$ ?
- (b) Estimate the cost of growing 97 acres, 101 acres, and 102 acres of corn.