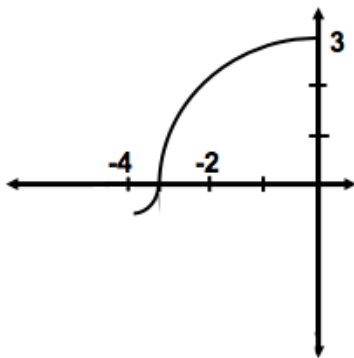CALCULUS 12      LG 4-6                    Names: _____
Group Work Exercise #3

1.  The continuous function $f$ is defined on an interval $-4 \le x \le 0$.  The graph of $f$ consist of two quarter circles shown below.   Let $g(x) = 2x + \int_0^x f(t)\,dt$

   a)  Find $g(-3) =$

   b)  Find $g'(x)$ and evaluate $g'(-3)$

2. The continuous function $f$ is defined on an interval $-8 \le x \le 0$. The graph of $f$ consist

of two triangles shown below. *Let* $g(x) = x + \int_0^x f(t)\,dt$

    a) Find $g(-6) =$

    b) Find $g'(x)$ and evaluate $g'(-6)$