MA 125-06 §5.1-5.3	**Quiz #8**	*score*	**Name:** _____ **5 December 2000**

1. Let $f(x)$ be a continuous function on the interval $[1,4]$. Set up the sum you would use to approximate $\int_1^4 f(x)\,dx$ using 6 subintervals and left endpoint. *(5 points)*

2. Use your calculator to approximate $\int_0^2 \sqrt{4-x^2}\,dx$ using the right endpoint rule for 5, 10, and 100 subintervals. Explain geometrically what the exact value of the integral represents and state the exact value. *(5 points)*

3. A particle move with velocity given by $v(t) = t^2 - 4t$ meters per second. Find the net distance the particle moves from $t = 0$ seconds to $t = 5$ seconds. How far (what is the maximum distance) from its starting point does the particle move? Explain. *(5 points)*

4. Find the area bounded by the curves $y = x$, $y = 3 - x^2$, and $x = 0$. Use your calculator as needed. *(5 points)*