**“I Can” Statements for Chapter 5 (with section 6.2)**

(Circle one)

Yes/Not Sure If velocity is graphed along a time axis, I can interpret the area under the curve as displacement.

Yes/Not Sure If any rate of change is graphed (amount per time), I can interpret the (net) area between the curve and the t-axis as the net accumulated change in amount. (*Generalized form of previous statement*)

Yes/Not Sure I can find an approximation for the area between a curve and the x-axis by breaking the region into n (i.e. any number of) thin rectangles of equal width.

Yes/Not Sure I can find the height of each rectangle using left endpoints (LRAM), midpoints (MRAM), or right endpoints (RRAM).

Yes/Not Sure I can write an arbitrary sum (a.k.a. Riemann sum) of similar terms using a capital sigma (∑) with an index variable (usually k or n).

Yes/Not Sure I can interpret the infinite limit of a Riemann sum as a definite integral.

Yes/Not Sure I can use velocity data in a table to approximate distance traveled.

Yes/Not Sure I can recognize when LRAM/RRAM will produce and under-estimate or an over-estimate.

Yes/Not Sure I can use what I know from geometry to evaluate integrals involving familiar shapes.

Yes/Not Sure I can use values of given integrals along with properties of integrals to find values of related integrals.

Yes/Not Sure I can use my graphing calculator to produce an approximate value for a definite integral.

Yes/Not Sure I can use integrals to find the mean (average) value of a function on an interval.

Yes/Not Sure I can use area to find specific values for an integral defined function.

Yes/Not Sure I can recognize that the derivative of an integral defined function is the original integrand function.

Yes/Not Sure I can use the Chain Rule to find the derivative when the upper bound of an integral defined function is a function of x (rather than just x).

Yes/Not Sure I can find the function equivalent to an integral defined function using antiderivatives, including the constant.

Yes/Not Sure I can evaluate definite integrals using antiderivatives.

Yes/Not Sure I can correctly identify all the antiderivatives on the formula sheet that was given to me. (*flash cards*)

Yes/Not Sure I can evaluate indefinite integrals by writing the antiderivative with an arbitrary constant added.

Yes/Not Sure I can find the “total area” between a curve and the x-axis both with and without a calculator.

Yes/Not Sure I can use the trapezoidal rule to approximate the area under the curve (average LRAM and RRAM).

Yes/Not Sure I can recognize situations where u-substitution might be helpful to evaluate an integral.

Yes/Not Sure I can use the u-substitution technique correctly to find antiderivatives.