Math 4 Honors

**Unit 8 Learning Goals**

**“The Integral”**

*Lesson 8-1: What is the Total?*

* I can use a rate of change graph to calculate total change over some time interval.

*Lesson 8-2: Velocity & Net Change*

* I can use graphs to determine both rate and direction of change in a quantity.
* I can use directional rate graphs to calculate the net change in position of a moving object or the net flow in a pipeline.

*Lesson 8-3: The Definite Integral*

* I can find and interpret the meaning of the definite integral of a function *f*(*x*) over an interval[*a, b*].
* I can find approximate and exact values of definite integrals.

*Lesson 8-4: The Fundamental Theorem of Calculus*

* I can use the General Power Rule for Integration to find the antiderivative of a function.
* I can use the Fundamental Theorem of Calculus to evaluate a definite integral.
* I can find the area between two curves using integration.