



## Basics of Integrals

*Having basic tools and techniques is essential for success.*

<p><b>5A</b></p>	<p><b>Understanding the Concept of an Integral</b></p> <ul style="list-style-type: none"> <li>• Explain the "net change" an integral finds</li> <li>• Explain what an integral calculates</li> <li>• Find integral values for functions whose graphs are piece-wise, simple geometry forms</li> <li>• Recall and apply properties of integrals</li> </ul>	
<p><b>5B</b></p>	<p><b>Estimating Integrals</b></p> <ul style="list-style-type: none"> <li>• Use various types of Riemann sums to estimate integral values</li> <li>• Use other methods to approximate integral values</li> </ul>	
<p><b>5C</b></p>	<p><b>Understanding the Mean Value Theorem for Integrals</b></p> <ul style="list-style-type: none"> <li>• Explain the meaning of the MVT</li> <li>• Find values guaranteed by the MVT</li> </ul>	
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<p><b>5D</b></p>	<p><b>Fundamental Theorem of Calculus Part 1: The Area Accumulator</b></p> <ul style="list-style-type: none"> <li>• Find values for area accumulator functions</li> <li>• Graph area accumulator functions</li> <li>• Find derivatives of area accumulator functions</li> </ul>	
<p><b>5E</b></p>	<p><b>Fundamental Theorem of Calculus Part 2: The Evaluative Form</b></p> <ul style="list-style-type: none"> <li>• Find basic antiderivatives</li> <li>• Evaluate definite integrals with basic antiderivatives</li> </ul>	
<p><b>5F*</b></p>	<p><b>Understanding Improper Integrals</b></p> <ul style="list-style-type: none"> <li>• Evaluate improper integrals with an infinite bound</li> <li>• Evaluate improper integrals with an infinite discontinuity</li> </ul>	