Name: _____ Date: _____

Mathematical Processes
SELECTING TOOLS AND COMPUTATIONAL STRATEGIES - *LOOK FORS*

SELECTING TOOLS and COMPUTATIONAL STRATEGIES ***Students will select and use a variety of concrete, visual, and electronic learning tools and appropriate computational strategies to investigate mathematical ideas and to solve problems.***	
Selecting computational strategies	Perform mental calculations; for example: • estimate by substituting rounded values into formulas • estimate using properties of numbers (e.g., a square root from known square numbers) • simplify the given expression first, if possible
	Evaluate functions or expressions by applying order of operations, laws of logarithms, laws of exponents, trigonometric ratios of angles in special triangles, etc.
	Use test values to determine or verify solutions involving inequalities
	Develop and use a set of references to • determine the value of a function • verify the solution to an equation • evaluate limits
	Evaluate expressions using relationships, identities, or laws (e.g., $\log_3 9$, $\sin\frac{\pi}{3}$, $(-2)^5$)

Selecting Tools	Understand when mental arithmetic or a pencil-and-paper calculation or estimation is more appropriate than technology or vice-versa
	Use appropriate algebraic tools when: • solving equations (polynomial, trigonometric, exponential, logarithmic) • solving inequalities • solving trigonometric equations • identifying key features of the graph of a function • simplifying expressions
	Use technology (e.g., graphing calculators, spreadsheets, GSP®, Fathom®, CAS) to: • explore, gather, display, manipulate, and present data and to graph functions in a variety of ways • to explore, analyse, display, manipulate, and present graphs of functions
	Use manipulatives and/or technology to develop understanding of new concepts for communicating or for performing certain tasks