Bloom's Taxonomy*	CTE Application to CCSS Math Standards (9-12)	Behavioral Verbs from CCSS	Example Tools & Products
Remember- ing (DOK 1)	<ul> <li>I <u>remember</u> how to:</li> <li>Use properties of rational and irrational numbers</li> <li>Explain the relationship between zeros and factors of polynomial functions</li> <li>Use and explain reasoning in the process of solving equations</li> <li>Use function notation</li> <li>Use the basic rules and tools of probability and statistics</li> </ul>	recite, locate, list, select	documentation, book, refer- ence, event, news-papers, In- ternet, measurement device, scale, log
Under- standing (DOK1-2)	<ul> <li>I <u>understand</u> how to:</li> <li>Convert from one unit to another</li> <li>Rewrite rational expressions</li> <li>Use existing functions to build new functions</li> <li>Interpret the structure of expressions</li> <li>Interpret functions that arise in applications in terms of the context</li> <li>Interpret surveys, experiments, and studies</li> </ul>	estimate, predict, ex- plain, relate	conversion, graph, poster, illustration, photo-graph, data abstract, chart, table, diagram, map, summary statistics
Applying (DOK 2-3)	<ul> <li>I can apply my understanding of:</li> <li>Properties of exponents to rational exponents</li> <li>Arithmetic operations and visual representations to complex numbers</li> <li>Quantitative reasoning and use of units to solve problems</li> <li>Operations to vectors and matrices and use them in applications</li> <li>Equivalent forms of expressions to solve problems</li> <li>Polynomial identities to solve problems</li> <li>Algebraic concepts to solve equations and inequalities in one variable as well as systems of equations</li> <li>The unit circle to extend the domain of trigonometric functions</li> <li>Trigonometric identities to solve problems</li> <li>Transformations to model congruence and similarity</li> <li>Theorems about circles and their parts</li> <li>Geometric concepts in modeling situations</li> </ul>	solve (simple), draw relationships, reason, perform, manipulate	equation, function, chart, table, presentation software, video, Web page, illustration, puzzle, model, blueprint, database
Analyzing (DOK 3)	<ul> <li>I can <u>analyze</u>:</li> <li>Units used to solve problems through quantitative reasoning</li> <li>Visual representations of equations and inequalities</li> <li>Functions using different representations</li> <li>Linear, quadratic, and exponential models for commonalities and differences</li> <li>Function expressions for situations they model</li> <li>Relationships between two-dimensional and three-dimensional objects</li> <li>Assorted categorical and quantitative data by summary and representative statistics</li> </ul>	synthesize, categorize, compare, differentiate, interpret	equations, functions, debate, essay, survey, questionnaire, report, journals, procedures, paper, graph, chart, diagram, model, court case, legislation



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Evaluating (DOK 4)	<ul> <li>I can evaluate:</li> <li>Problems solved with linear, quadratic, and exponential models</li> <li>Complex number arithmetic</li> <li>Geometric descriptions and theorems algebraically</li> <li>Linear models to interpret and predict results</li> <li>The random processes underlying statistical experiments</li> <li>Outcomes of decisions using probability</li> </ul>	solve (complex)	calculation, conclusion, recommendation, online information, survey
Creating (DOK 4)	<ul> <li>I can <u>create:</u></li> <li>Models with vector quantities</li> <li>Equations that describe numbers or relationships</li> <li>Functions that model relationships between quantities</li> <li>Models of periodic phenomena with trigonometric functions</li> <li>Geometric constructions</li> <li>Proofs of theorems</li> <li>Geometric models as applications and interpretations of algebraic expression and functions</li> </ul>	design, model, fol-low a process, integrate data from research	model, function, graph, chart, table, report, reference, game, illustration, experi- ment, procedure, guide- line, technical instruction, brochure, Web site, poster, advertisement

\* Adapted from Bloom's Taxonomy (revised). Forehand, M. (2005). Bloom's taxonomy: Original and revised.. In M. Orey (Ed.), Emerging perspectives on learning, teaching, and technology. Retrieved 08/10/12, from http://projects.coe.uga.edu/epltt/.



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