

Table E.2:
CCSS Critical Areas and NCTM Focal Points, Grades 6–8

Grade Level	CCSS Critical Areas	NCTM Focal Points
Grade 6	<ol style="list-style-type: none"> 1. Connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems. 2. Completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative number. 3. Writing, interpreting, and using expressions and equations. 	<ol style="list-style-type: none"> 1. Developing an understanding of and fluency with multiplication and division of fractions and decimals 2. Connecting ratio and rate to multiplication and division 3. Writing, interpreting, and using mathematical expressions and equations
Grade 7	<ol style="list-style-type: none"> 1. Developing understanding of and applying proportional relationships. 2. Developing understanding of operations with rational numbers and working with expressions and linear equations. 3. Solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume. 4. Drawing inferences about populations based on samples. 	<ol style="list-style-type: none"> 1. Developing an understanding of and applying proportionality, including similarity 2. Developing an understanding of and using formulas to determine surface areas and volumes of three-dimensional shapes 3. Developing an understanding of operations on all rational numbers and solving linear equations
Grade 8	<ol style="list-style-type: none"> 1. Formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equations, and solving linear equations and systems of linear equations. 2. Grasping the concept of function and using functions to describe quantitative relationships. 3. Analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem. 	<ol style="list-style-type: none"> 1. Analyzing and representing linear functions and solving linear equations and systems of linear equations 2. Analyzing two- and three-dimensional space and figures by using distance and angle 3. Analyzing and summarizing data sets