



Common Core State Standards (CCSS)
MATHEMATICS
DOMAINS AND CLUSTERS
GRADES 6-8

AT – A – GLANCE

Mathematics Common Core State Standards Grades 6-8

This table shows the domains and clusters in each grade 6-8

| | 6 | 7 | 8 |
|--|---|---|---|
| Ratios and Proportional Relationships | <ul style="list-style-type: none"> Understand ratio concepts and use ratio reasoning to solve problems | <ul style="list-style-type: none"> Analyze proportional relationships and use them to solve real-world and mathematical problems. | |
| The Number System | <ul style="list-style-type: none"> Apply and extend previous understandings of multiplication and division to divide fractions by fractions. Compute fluently with multi-digit numbers and find common factors and multiples. Apply and extend previous understandings of numbers to the system of rational numbers. | <ul style="list-style-type: none"> Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. | <ul style="list-style-type: none"> Know that there are numbers that are not rational, and approximate them by rational numbers. |
| Expressions and Equations | <ul style="list-style-type: none"> Apply and extend previous understandings of arithmetic to algebraic expressions. Reason about and solve one-variable equations and inequalities. Represent and analyze quantitative relationships between dependent and independent variables. | <ul style="list-style-type: none"> Use properties of operations to generate equivalent expressions. Solve real-life and mathematical problems using numerical and algebraic expressions and equations. | <ul style="list-style-type: none"> Work with radicals and integer exponents. Understand the connections between proportional relationships, lines, and linear equations. |
| Functions | | | <ul style="list-style-type: none"> Define, evaluate, and compare functions. Use functions to model relationships between quantities. |
| Geometry | <ul style="list-style-type: none"> Solve real-world and mathematical problems involving area, surface area, and volume. | <ul style="list-style-type: none"> Draw, construct and describe geometrical figures and describe the relationships between them. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. | <ul style="list-style-type: none"> Understand congruence and similarity using physical models, transparencies, or geometry software. Understand and apply the Pythagorean Theorem. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres. |
| Statistics and Probability | <ul style="list-style-type: none"> Develop understanding of statistical variability. Summarize and describe distributions. | <ul style="list-style-type: none"> Use random sampling to draw inferences about a population. Draw informal comparative inferences about two populations. Investigate chance processes and develop, use and evaluate probability models. | <ul style="list-style-type: none"> Investigate patterns of association in bivariate data. |