**Grade 8**

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| **Number and Number Sense** | | | | |
| Real numbers | Integers | Proper fractions | Improper fractions | Decimals |
| Percent | Scientific notation | Radicals | Mixed numbers | Numerator |
| Denominator | Whole number | Density property\* | Zero power | Factors |
| Square root | Rational number | Irrational number | Natural (counting) numbers | Whole number |
| Perfect square |  |  |  |  |

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| **Computation and Estimation** | | | | |
| Percent | Ratio | Reconciliation | Discount | Original price |
| Discount price | Simple interest | Principal | Annual rate of interest | Loan |
| Investment | Interest earned | Interest paid | Percent increase | Percent decrease |

\*NOTE: Students should apply rules but not required to use the terms.

\*\*NOTE: Key word samples

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**Grade 8 (continued)**

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| **Measurement and Geometry** | | | | |
| Vertical angles | Nonadjacent angles | Intersecting lines | Congruent | Vertex |
| Complementary angles | Supplementary angles | Adjacent angles | Ray | Polyhedron |
| Solid figure | Polygon | Net | Two-dimensional | Three-dimensional |
| Surface area | Volume | Rectangular prism | Parallel | Bases |
| Length | Width | Height | Cube | Faces |
| Edges | Cone | Right circular cone | Square-based pyramid | Pyramid |
| Cylinder | Pi | Transformation | Translation | Reflection |
| Dilation | Preimage | Image | Scale factor | Perspective |
| Pythagorean Theorem | Right triangle | Hypotenuse | Leg | Converse |
| Composite plane figure | Plane figure | Segment | Perimeter | Circumference |
| Radius | Subdivide | Rectangle | Triangle | Parallelogram |
| Trapezoid | Circle | Radius | Diameter | Semicircle |
| Area |  |  |  |  |

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| **Probability and Statistics** | | | | |
| Probability | Independent events | Dependent events | Simple event | Outcome |
| Desired outcome | Total possible outcomes | Boxplot (box-and-whisker) | Single-variable (univariate) data | Median |
| Range | Five-number summary | Lower extreme (minimum) | Lower quartile | Upper quartile |
| Upper extreme (maximum) | Interquartile range | Scatterplot | Best fit | Two-variable (bivariate) data |
| No relationship | Positive relationship | Negative relationship | Linear relationship |  |

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**Grade 8 (continued)**

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| **Patterns, Functions, and Algebra** | | | | |
| Expression | Numerical expression | Order of operations | Algebraic expression |  |
| Variable | Exponent | Coefficient | Commutative property of addition | Commutative property of multiplication |
| Associative property of addition | Associative property of multiplication | Distributive property | Additive identity property | Multiplicative identity property |
| Inverse property of addition | Inverse property of multiplication | Multiplicative property of zero | Substitution property | Power of a number |
| Base | Exponent | Ordered pair | Relation | Function |
| Inputs | Outputs | Discrete points | Continuous | Domain |
| Range | Independent variable | Dependent variable | Linear function | Positive slope |
| Negative slope | Zero slope | Rate of change | Steepness | Horizontal line |
| Linear function | y-intercept | Proportional relationship | Additive relationship | Multistep equation |
| Multistep linear equation | Expression | Variable expression | Algebraic expression | Verbal sentence |
| Algebraic equation | Like terms | Multistep inequality | Solution set |  |

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