

NCTM Focal Points Alignment with The Quantile Framework® for Mathematics*



| QTaxon Number** | QF Strand | QTaxon Description | K-garten | Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 | Grade 6 | Grade 7 | Grade 8 |
|-----------------|-----------|---|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 4 | 1 | Read and write numerals using one-to-one correspondence to match sets of 0 to 10. | 0.1 | | | | | | | | |
| 6 | 1 | Use ordinal numbers first through tenth to describe order. | 0.1 | | | | | | | | |
| 14 | 2 | Compare and order objects using mathematical vocabulary. | 0.5 | 1.3 | | | | | | | |
| 15 | 2 | Use directional and positional words. | 0.5 | | | | | | | | |
| 20 | 4 | Organize, display, and interpret information in concrete or picture graphs. | 0.4 | 1.5 | | | | | | | |
| 24 | 1 | Rote count by 1s, 2s, 5s, and 10s to 100. | | 1.2 | | | | | | | |
| 26 | 1 | Compare and order sets and numerals up to 100; including using symbol notation (>, <, =). | 0.3 | 1.2 | 2.4 | | | | | | |
| 28 | 1 | Read and write word names from zero to twelve. | 0.1 | | | | | | | | |
| 29 | 1 | Use ordinal numbers beyond tenth to describe order. | 0.1 | | | | | | | | |
| 35 | 1 | Use place value with ones and tens. | | 1.2 | 2.4 | | | | | | |
| 36 | 1 | Model the concept of addition for sums to 10. | | 1.1 | | | | | | | |
| 37 | 1 | Model the concept of subtraction using numbers less than or equal to 10. | | 1.1 | | | | | | | |
| 41 | 1 | Know and use addition and subtraction facts to 10. | | 1.1 | | | | | | | |
| 50 | 2 | Identify equal and unequal measures and regions. | 0.3 | | 2.3 | | | | | | |

The field of mathematics education reflects the ongoing work of many outstanding organizations and advisory groups, including the National Council of Teachers of Mathematics (NCTM); the National Assessment Governing Board (NAGB), which oversees NAEP; and the National Mathematics Advisory Panel. An important aspect of these efforts has been the identification of key mathematical topics and concepts within a grade, as well as the progression of topics and concepts across grades. The resulting publications and summaries of these efforts have been aligned with The Quantile Framework for Mathematics, where appropriate.

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|-----------------|-----------|--|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 52 | 2 | Recognize the 2-dimensional elements of 3-dimensional figures. | | 1.3 | | 3.5 | | | | | |
| 54 | 3 | Sort a set of objects in one or more ways, explain. | 0.4 | | | | | | | | |
| 55 | 3 | Identify a pattern and translate into another form (e.g., actions, words, objects) | 0.6 | | | | | | | | |
| 59 | 4 | Answer comparative and quantitative questions about charts and graphs. | | 1.5 | 2.4 | | | | | | |
| 60 | 4 | Organize, display, and interpret information in line plots and tally charts. | | 1.5 | 2.4 | 3.6 | | | | | |
| 61 | 4 | Organize, display, and interpret information in picture graphs and bar graphs using grids. | | 1.5 | | | | | | | |
| 70 | 1 | Identify odd and even numbers using objects. | | 1.6 | | | | | | | |
| 73 | 1 | Indicate the value of each digit in any 2- or 3-digit number. | | | 2.1 | | | | | | |
| 74 | 1 | Make reasonable estimates of the number of objects. | | 1.1 | | | | | | | |
| 75 | 1 | Identify missing addends for addition facts to 18. | | 1.1 | 2.2 | | | | | | |
| 79 | 1 | Add 2- and 3-digit numbers without regrouping. | | 1.4 | 2.2 | | | | | | |
| 83 | 2 | Identify and name: hexagon, trapezoid, parallelogram and rhombus. | 0.2 | | | | | | | | |
| 85 | 2 | Identify and make figures with line symmetry. | | 1.3 | | | | | | | |
| 86 | 2 | Identify and make congruent figures. | | 1.3 | 2.5 | | 4.5 | | | | |
| 89 | 3 | Identify, continue, and describe rules for repeating patterns. | 0.6 | | | | | | | | |
| 90 | 3 | Use patterns to continue numerical sequences; identify the rule. | | 1.6 | 2.4 | | | | | | |
| 91 | 3 | Identify and correct errors in numerical and geometric patterns. | | 1.6 | | | | | | | |

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| 97 | 4 | Locate points on a number line. | | 1.5 | 2.3 | 3.2 | | | | | |
| 99 | 5 | Measure lengths in inches/centimeters using appropriate tools and units. | | | 2.3 | | | | | | |
| 108 | 5 | Determine costs and make change using coins up to \$1.00. | | | 2.4 | | | | | | |
| 109 | 1 | Read and write word names for numbers from 1,000 to 9,999. | | | 2.1 | | | | | | |
| 110 | 1 | Relate standard and expanded notation to 3- and 4-digit numbers. | | | 2.1 | 3.7 | | | | | |
| 111 | 1 | Compare and order numbers less than 10,000. | | | 2.1 | | | | | | |
| 114 | 1 | Represent fractions concretely and symbolically. | | | 2.5 | 3.2 | | | | | |
| 115 | 1 | Use benchmark numbers (zero, one-half, one) and models to compare and order fractions. | | | | 3.2 | | | | | |
| 116 | 1 | Use models to write equivalent fractions, especially relationships among halves, fourths, and eighths, and thirds and sixths. | | | | 3.2 | | | | | |
| 117 | 1 | Subtract 2- and 3-digit numbers with regrouping | | | 2.2 | | | | | | |
| 118 | 1 | Model multiplication in a variety of ways including repeated addition, rectangular arrays, and skip counting. | | | 2.4 | 3.1 | 4.1 | | | | |
| 119 | 1 | Use the identity properties for addition and multiplication. | | 1.6 | | 3.1 | 4.1 | | 6.5 | | |
| 120 | 1 | Model division in a variety of ways including sharing equally, repeated subtraction, rectangular arrays, and the relationship with multiplication. | | | | 3.1 | 4.8 | 5.1 | | | |
| 121 | 1 | Use multiplication facts through 144. | | | | 3.1 | 4.1 | | | | |
| 123 | 1 | Identify and use the rules for divisibility (2, 3, 4, 5, 6, 9, and 10). | | | | | | 5.1 | | | |
| 129 | 3 | Describe and demonstrate patterns in skip counting and multiplication; continue sequences beyond memorized or modeled numbers. | | | 2.6 | 3.4 | 4.1, 4.4 | | | | |
| 130 | 3 | Extend patterns that are generated from multiple rules. | | | 2.6 | 3.4 | | | | | |

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| 132 | 3 | Solve word problems using patterns. | | | | 3.4 | 4.4 | | 6.5 | | |
| 133 | 4 | Solve problems using Venn diagrams. | | | | 3.4 | | | | | |
| 134 | 4 | Organize, display, and interpret information in bar graphs. | | | | 3.6 | 4.7 | 5.6 | | | |
| 136 | 4 | Organize, display, and interpret information in graphs containing scales that represent multiple units. | | | | | | 5.6 | | | |
| 137 | 4 | Organize, display, and interpret information in tables and graphs (frequency tables, pictographs, and line plots). | | | | 3.6 | 4.7 | | | | |
| 138 | 4 | Locate a point in Quadrant I of a coordinate grid given an ordered pair; name the ordered pair for a point in Quadrant I of a coordinate grid. | | | | | | 5.6 | | | |
| 146 | 5 | Determine perimeter using concrete models, nonstandard units, and standard units. | | | 2.5 | 3.5 | 4.3 | 5.3 | | | |
| 152 | 1 | Read, write, and compare whole numbers from 10,000 to less than one million using standard and expanded notation. | | | | 3.7 | 4.8 | | | | |
| 153 | 1 | Apply appropriate type of estimation for sums and differences. | | | 2.2 | 3.7 | | | | | |
| 154 | 1 | Identify the place value of each digit in a multi-digit numeral to the thousandths place. | | | | | 4.2 | 5.2 | | | |
| 156 | 1 | Compare rational numbers in decimal form (tenths and hundredths) with and without models. | | | | | 4.2 | | | | |
| 157 | 1 | Compare decimals to fractions (tenths and hundredths) with and without models and pictures. | | | | | 4.2 | | | | |
| 158 | 1 | Add and subtract decimals using models and pictures to explain the process and record the results. | | | | | | 5.2 | | | |
| 161 | 1 | Know and use the commutative and associative properties to simplify numerical expressions. | | 1.4 | 2.2 | 3.1 | 4.1 | | 6.5 | | |
| 162 | 1 | Know and use division facts related to multiplication facts through 144. | | | | 3.1 | 4.1, 4.8 | 5.1 | | | |
| 163 | 1 | Understand that many whole numbers factor in different ways. | | | | | | 5.4 | | | |
| 164 | 1 | Round rational numbers to a whole number or a given fractional place value. | | | | | | 5.5 | | | |

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| 165 | 1 | Multiply 2- and 3-digit whole numbers by a 1-digit whole number or a 2-digit multiple of 10. | | | | 3.1 | 4.1 | 5.1 | | | |
| 166 | 1 | Divide using single-digit divisors, with and without remainders. | | | | | 4.1, 4.8 | 5.1 | | | |
| 167 | 1 | Use order of operations including parenthesis to simplify numerical expressions. | | | | | | 5.4 | | | |
| 168 | 1 | Describe the effect of operations on size and order of numbers. | | | | | | 5.7 | 6.4 | | |
| 169 | 1 | Use concepts of negative numbers (e.g., on a number line, in counting, in temperature, in "owing") to describe numbers less than zero. | | | | | | 5.7 | | | |
| 170 | 1 | Estimate and compute products of whole numbers with 2- or 3-digit factors. | | | | | | 5.7 | | | |
| 171 | 1 | Estimate and solve division problems with 2- and 3-digit divisors; explain solution. | | | | | | 5.1, 5.7 | | | |
| 174 | 2 | Use manipulatives, pictorial representations, and appropriate vocabulary (e.g., polygon, side, angle, vertex, diameter) to identify and compare properties of plane figures. | | | | 3.3 | | | | | |
| 175 | 2 | Use manipulatives, pictorial representations, and appropriate vocabulary (e.g., face, edge, vertex, and base) to identify and compare properties of solid figures. | | | | | | 5.3 | | | |
| 178 | 2 | Use models to illustrate or recognize reflections, rotations, and translations of plane figures. | | | | 3.3 | 4.5 | | | | |
| 179 | 2 | Predict results of tessellating, subdividing, and changing shapes by paper folding or dissecting and rearranging pieces of plane figures and solids. | | | | 3.3 | 4.5 | | | | |
| 180 | 3 | Construct or complete a table of values to solve problems associated with a given relationship. | | | | | 4.4 | | 6.3 | | |
| 183 | 4 | Describe data using the median. | | | | | | | | | 8.3 |
| 185 | 4 | Describe the probability of an event using a fraction or ratio. | | | | | | | | 7.7 | |
| 186 | 4 | Organize, display, and interpret information in line graphs. | | | | 3.6 | | 5.6 | | | |
| 191 | 5 | Use grids to develop the relationship between the total numbers of square units in a rectangle and the length and width of the figure ($l \times w$). | | | | | 4.3 | 5.3 | | | |

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| 192 | 5 | Determine the area of rectangles, squares, and composite figures using nonstandard units, grids, and standard units. | | | | | 4.3 | 5.3 | | | |
| 195 | 1 | Read, write, and compare numbers with decimal place values to the thousandths place or numbers greater than one million. | | | | | 4.2 | 5.2, 5.7 | | | |
| 196 | 1 | Identify equivalent decimals and fractions at the symbolic level, including simplifying fractions. Explain the equivalence. | | | | | 4.2, 4.8 | 5.6 | 6.4 | 7.5 | |
| 201 | 1 | Estimate and compute sums and differences with decimal numbers. | | | | | | 5.2 | | | |
| 202 | 2 | Identify angles (acute, right, obtuse, and straight). | | | | | 4.6 | | | | |
| 204 | 2 | Use a variety of triangles, quadrilaterals, and other polygons to draw conclusions about the sum of the measures of the interior angles. | | | | | | | | | 8.2 |
| 205 | 2 | Classify plane figures according to type of symmetry (line, rotational). | | | | | 4.5 | | | | |
| 208 | 3 | Solve one-step linear equations and inequalities and graph solutions of the inequalities on a number line. | | | | | | 5.4 | 6.3 | 7.3 | |
| 209 | 3 | Identify situations or solve problems with varying rates of change. | | | | | | | 6.5 | | |
| 210 | 3 | Describe the algebraic relationship between two defined variables in a verbal expression. | | | | | | | 6.3 | | |
| 211 | 4 | Organize, display, and interpret information in stem-and-leaf plots. | | | | | 4.7 | | | | |
| 214 | 4 | Describe data using the mean. | | | | | | | | | 8.3 |
| 217 | 5 | Draw and measure angles using a protractor. Understand that a circle measures 360 degrees. | | | | | 4.6 | | | | |
| 218 | 3 | Translate between models or verbal phrases and algebraic expressions. | | | | | | | 6.3 | | |
| 221 | 1 | Find multiples, common multiplies, and the least common multiple of numbers; explain. | | | | | | 5.4 | | 7.5 | |
| 222 | 1 | Find factors, common factors, and the greatest common factor of numbers; explain. | | | | | | 5.4 | | 7.5 | |
| 223 | 1 | Identify prime and composite numbers less than 100. | | | | | | 5.4 | | 7.5 | |

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| 224 | 1 | Multiply two fractions or a fraction and a whole number. | | | | | | | 6.1 | | |
| 227 | 1 | Relate a percent to its equivalent fraction or decimal. | | | | | | | | 7.5 | |
| 230 | 1 | Divide two fractions or a fraction and a whole number. | | | | | | | 6.1 | | |
| 231 | 1 | Add and subtract with fractions and mixed numbers that have unlike denominators. | | | | | | 5.2, 5.4 | | | |
| 232 | 1 | Write numbers using prime factorization. | | | | | | | | 7.5 | |
| 233 | 1 | Calculate unit rates to make comparisons. | | | | | | | 6.2 | 7.1 | |
| 243 | 3 | Generate a set of ordered pairs using a rule which is stated in verbal, algebraic, or table form. | | | | | | | 6.3 | | |
| 244 | 3 | Given a list of ordered pairs, identify either verbally or algebraically the rule used to generate the list and record results. | | | | | | | 6.5 | | |
| 247 | 4 | Locate points in all quadrants of the coordinate plane using ordered pairs. | | | | | | 5.6 | | | |
| 249 | 4 | Determine the probability from experimental results or compare theoretical probabilities and experimental results. | | | | | | | | 7.7 | |
| 254 | 5 | Investigate and determine the relationship between the diameter and the circumference of a circle and the value of pi; calculate the circumference of a circle. | | | | | | | | 7.4 | |
| 256 | 5 | Use models to develop formulas for finding areas of triangles, parallelograms, trapezoids, and circles. | | | | | | 5.3 | 6.5 | 7.2 | |
| 257 | 5 | Calculate the areas of triangles, parallelograms, trapezoids, circles and composite figures. | | | | | | | 6.6 | 7.2 | |
| 259 | 1 | Write whole numbers in scientific notation; convert scientific notation to standard form; investigate the uses of scientific notation. | | | | | | | 6.1 | | 8.7 |
| 261 | 1 | Model or compute with integers using addition or subtraction. | | | | | | | | 7.3 | |
| 262 | 1 | Model or compute with integers using multiplication or division. | | | | | | | | 7.3 | |

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|-----------------|-----------|---|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 263 | 1 | Write a proportion to model a word problem; solve proportions. | | | | | | | | 7.1,7.6 | |
| 264 | 1 | Calculate or estimate the percent of a number including discounts, taxes, commissions, and simple interest. | | | | | | | | 7.1 | |
| 266 | 1 | Use remainders in problem-solving situations and interpret the remainder with respect to the original problem. | | | | | | 5.1 | | | |
| 269 | 2 | Identify the congruent and supplementary relationships of the angles formed by cutting parallel lines by a transversal. | | | | | | | | | 8.2 |
| 271 | 2 | Use models to investigate the concept of the Pythagorean Theorem. | | | | | | | | | 8.2 |
| 274 | 3 | Evaluate algebraic expressions. | | | | | | | 6.3 | | |
| 275 | 3 | Solve two-step linear equations and inequalities and graph solutions of the inequalities on a number line. | | | | | | | | 7.3 | |
| 276 | 3 | Write or model a linear equation or inequality to solve a given problem. | | | | | | | 6.3 | | |
| 278 | 4 | Organize, display, and interpret information in histograms. | | | | | | | | 7.6 | |
| 280 | 4 | Organize, display, and interpret information in circle graphs using ratios and percents. | | | | | | | | 7.4,7.6 | |
| 281 | 4 | Describe data using or selecting the appropriate measure of central tendency. | | | | | | | | | 8.3 |
| 287 | 5 | Use scale factors to reduce and enlarge drawings on grids. | | | | | | | | 7.4 | |
| 289 | 5 | Model the concept of volume for prisms and cylinders as the product of the area of the base and the height. Calculate the volume of prisms and cylinders. | | | | | | | 6.6 | 7.2 | |
| 291 | 5 | Recognize the effect on the area and perimeter when one or two dimensions of a plane figure are changed. | | | | | | | | 7.4 | |
| 292 | 5 | Use proportions to express relationships between corresponding parts of similar figures. | | | | | | | | 7.4 | 8.2,8.5 |
| 295 | 1 | Solve problems involving percent increase and percent decrease. | | | | | | | | 7.1 | |
| 296 | 1 | Use rules of exponents to simplify numeric and algebraic expressions. | | | | | | | | | 8.7 |

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| 297 | 1 | Estimate the square root of a number between two consecutive integers. Use a calculator to estimate the square root of a number. | | | | | | | | | 8.7 |
| 300 | 1 | Use the commutative, associative, and distributive properties, and inverses and identities to simplify algebraic expressions. | | | | | | | | 7.3 | |
| 302 | 2 | Use the Pythagorean Theorem and its converse to solve problems. | | | | | | | | | 8.2,8.7 |
| 307 | 3 | Find and identify the intercepts of a linear relation. | | | | | | | | | 8.1 |
| 308 | 3 | Describe, extend, and analyze a wide variety of geometric and numerical patterns, such as Pascal's triangle or the Fibonacci sequence. | | | | | | | | | 8.4 |
| 309 | 3 | Graphically solve systems of linear equations. | | | | | | | | | 8.1 |
| 310 | 4 | Organize, display, and interpret information in box-and-whisker plots. | | | | | | | | | 8.3,8.6 |
| 311 | 4 | Organize, display, and interpret information in scatter plots. Approximate a trend line and identify the relationship as positive, negative, or no correlation. | | | | | | | | | 8.6 |
| 314 | 4 | Distinguish between a population and a sample and draw conclusions about the sample (random or biased). | | | | | | | | 7.6 | |
| 316 | 4 | Make predictions based on theoretical probabilities or experimental results. | | | | | | | | 7.7 | |
| 318 | 5 | Use nets or formulas to find the surface area of prisms and cylinders. | | | | | | 5.3 | 6.6 | 7.2 | |
| 321 | 5 | Determine the effect on the volume of solid figures when one or more dimension is changed. | | | | | | | | 7.4 | |
| 332 | 3 | Solve linear equations using the commutative, distributive and equality properties and be able to justify the steps used. | | | | | | | | 7.3 | |
| 333 | 3 | Use systems of linear equations in two or more variables to solve problems. | | | | | | | | | 8.1 |
| 342 | 4 | Derive a linear equation that models a set of data (line of best fit). Using calculators. Use the model to make predictions. | | | | | | | | | 8.6 |
| 343 | 5 | Find the slope of a line given the graph of the line, an equation of the line, or two points on the line. | | | | | | | | | 8.1,8.5 |

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|-----------------|-----------|---|----------|---------|---------|---------|---------|---------|----------|---------|---------|
| 344 | 3 | Describe the slope of a line given in the context of a problem situation. | | | | | | | | 7.1 | 8.1 |
| 345 | 3 | Write the equation of and graph linear relationships given the slope and y -intercept. | | | | | | | | | 8.1 |
| 346 | 3 | Write the equation of and graph linear relationships given the slope and one point on the line. | | | | | | | | | 8.1 |
| 347 | 3 | Write the equation of and graph linear relationships given two points on the line. | | | | | | | | | 8.1 |
| 350 | 3 | Determine the effect of changes in slope and/or intercepts on graphs and equations of lines. | | | | | | | | | 8.1 |
| 362 | 3 | Use direct variation to solve problems. | | | | | | | | 7.1 | |
| 366 | 3 | Convert between different representation of relations and functions using tables, the coordinate plane, and algebraic or verbal statements. | | | | | | | | | 8.4 |
| 530 | 5 | Find the ratio of perimeters, areas, and volumes of similar geometric figures using formulas to solve problems. | | | | | | | | 7.4 | |
| 536 | 2 | Identify, draw and name triangles, rectangles, squares, and circles. | 0.2 | | | | | | | | |
| 537 | 2 | Identify and name spheres and cubes. | 0.2 | | | | | | | | |
| 540 | 1 | Identify combinations of fractions that make one whole. | | | | 3.2 | | | | | |
| 542 | 2 | Combine simple figures to create a given shape. | 0.2 | 1.3 | 2.5 | | | | | | |
| 543 | 2 | Identify the resulting shapes after a plane or solid figure is dissected. | | 1.3 | | | | | | | |
| 544 | 3 | Write addition and subtraction sentences to represent a word problem. | | | | | | 5.4 | | | |
| 546 | 1 | Model and identify mixed numbers and their equivalent improper fractions. | | | | 3.2 | 4.8 | | | | |
| 551 | 1 | Use proportional reasoning to solve problems. | | | 2.5 | | | | | 6.2 | |
| 555 | 3 | Determine the ratio or rate of change of a relation given a table or graph. | | | | | | | 6.2, 6.4 | 7.1 | |

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| 556 | 2 | Describe cross-sectional views of three-dimensional figures. | | | | | | | | 7.2 | |
| 558 | 2 | Use proportional reasoning to solve problems related to similar and congruent polygons. | | | | | | | 6.6 | 7.4 | 8.2 |
| 559 | 4 | Determine the quartiles or interquartile range for a set of data. | | | | | | | | | 8.6 |
| 561 | 4 | Identify outliers and determine their effect on the mean, median, and range of a set of data. | | | | | | | | | 8.3,8.6 |
| 562 | 3 | Use ordered pairs derived from tables, algebraic rules, or verbal descriptions to graph linear functions. | | | | | | | | | 8.1 |
| 565 | 4 | Approximate a trend line or calculate a line of best fit for a given set of data. Use the trend line or line of best fit to make predictions. | | | | | | | | | 8.6 |
| 567 | 3 | Identify relations as linear or nonlinear. | | | | | | | | | 8.4 |
| 568 | 3 | Interpret and compare properties of linear functions, graphs, and equations. | | | | | | | | | 8.1 |
| 571 | 3 | Use inverse, combined and joint variation to solve problems. | | | | | | | | 7.1 | 8.4 |
| 574 | 3 | Apply algebra techniques to solve rate problems including distance, work, and mixture problems. | | | | | | | | | 8.4 |
| 578 | 1 | Use the distributive property to simplify numerical expressions. | | | | 3.1 | 4.1 | | 6.5 | | |
| 581 | 5 | Measure length using nonstandard units. | 0.3 | 1.5 | 2.3 | | | | | | |
| 582 | 5 | Measure weight using nonstandard units. | 0.3 | | | | | | | | |
| 583 | 5 | Measure capacity using nonstandard units. | 0.3 | | | | | | | | |
| 584 | 5 | Measure time using nonstandard units. | 0.6 | | | | | | | | |
| 585 | 5 | Estimate and calculate areas with scale drawings and maps. | | | | | | | | 7.4 | |
| 598 | 1 | Add 2- and 3-digit numbers with regrouping. | | | 2.2 | | | | | | |

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| 599 | 1 | Subtract 2- and 3digit numbers without regrouping. | | 1.4 | 2.2 | | | | | | |
| 600 | 1 | Use place value with thousands. | | | | 3.7 | 4.1 | | | | |
| 605 | 3 | Find the value of a variable in a number sentence. | | | | | | | 6.3 | | |
| 607 | 3 | Write multiplication and division sentences to represent a problem. | | | | | | 5.4 | | | |
| 608 | 1 | Multiply or divide two decimals or a decimal and a whole number. | | | | | | | 6.1 | | |
| 609 | 1 | Multiply or divide with mixed numbers. | | | | | | | 6.1 | | |
| 615 | 2 | Identify the number of lines of symmetry in a figure. | | | | | 4.5 | | | | |
| 617 | 1 | Use counting strategies for totals up to 100 that include counting forward, counting backwards, grouping, ten frames, and hundred charts. | 0.1 | 1.1 | 2.6 | | | | | | |
| 620 | 2 | Name polygons by the number of sides. Distinguish quadrilaterals based on properties of their sides or angles. | | | | | | 5.3 | | | |
| 622 | 1 | Solve problems with percent equations, percent proportions, or ratios. | | | | | | | | 7.5 | |
| 623 | 1 | Identify additive inverses (opposites) and multiplicative inverses (reciprocals, including zero). | | | | | | | 6.1 | 7.5 | |
| 624 | 2 | Identify and classify triangles according to the measures of the interior angles and the lengths of the sides. | | | | | 4.6 | | | | |
| 627 | 2 | Use models to determine properties (slide, stack, and roll) of basic solid figures. | 0.4 | 1.3 | | | | | | | |
| 630 | 5 | Model the concept of the volume of a solid figure using cubic units. | | | | | | 5.3, 5.5 | | | |
| 633 | 1 | Use powers of ten to multiply and divide whole numbers and decimals. | | | | | | 5.1,5.7 | | | |
| 634 | 4 | Describe data using the range. | | | | | | | | | 8.3 |
| 642 | 1 | Compute with rational numbers (positive and negative). | | | | | | | | 7.3 | |

| QTaxon Number** | QF Strand | QTaxon Description | K-garten | Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 | Grade 6 | Grade 7 | Grade 8 |
|-----------------|-----------|---|----------|---------|---------|---------|----------|---------|---------|---------|---------|
| 648 | 1 | Read and write word names for rational numbers in decimal form to the hundredths place. | | | | | 4.2 | | | | |
| 649 | 5 | Estimate, measure, and compare length using appropriate tools and units. | | | 2.5 | 3.5 | 4.3, 4.8 | | | | |
| 650 | 5 | Estimate, measure, and compare capacity using appropriate tools and units. | | | | | 5.5 | 5.5 | | | |
| 651 | 5 | Estimate, measure, and compare weight using appropriate tools and units. | | | | | 5.5 | 5.5 | | | |
| 654 | 1 | Write a ratio to compare two quantities. | | | | | | | 6.2 | | |
| 663 | 1 | Represent a number in a variety of numerical ways. | | 1.1 | 2.1 | | | | | | |
| 668 | 1 | Write and simplify equivalent fractions | | | | | 4.8 | | 6.4 | | |
| 671 | 5 | Use dimensional analysis to rename quantities or rates. | | | | | | | | 7.4 | |

Legend: For each grade, individual Focal Points were numbered consecutively. The Connections to the Focal Points continued the numerical system from the Focal Points. The numbers after the dot refer to specific skills mentioned within the Focal Point/Connection.

* Based on NCTM Curriculum Focal Points for Pre-Kindergarten through Grade 8 Mathematics (2006)

** Note: QTaxon Number refers to a unique identification number in The Quantile Framework® for Mathematics. It is for reference only and is not the Quantile measure.