

Skills and Concepts to Enhance (73% Probability*) 191 - 200	Skills and Concepts to Develop (50% Probability*) 201 - 210	Skills and Concepts to Introduce (27% Probability*) 211 - 220
<p>Ratios and Proportional Relationships</p> <ul style="list-style-type: none"> Solves problems involving basic percent concepts (e.g., 10%, 50%, 100%) Converts between cups and pints Converts between cups, pints, and quarts Computes simple conversions among units of time (minutes, hours) Solves simple problems involving miles/kilometers per hour Writes the missing number in a proportion using basic facts 	<p>Ratios and Proportional Relationships</p> <ul style="list-style-type: none"> Converts between inches and feet Solves simple problems involving measurement of length Estimates simple conversions involving length between the customary and metric system Converts between cups and pints Converts between cups, pints, and quarts Computes simple conversions among units of time (hours, days) Computes more difficult conversions among units of time Applies dimensional analysis to simple real-world problems (time) Solves simple problems involving miles per gallon Solves simple problems involving miles/kilometers per hour Determines unit price Writes the missing number in a proportion using basic facts Identifies the percent represented in a 2-D region 	<p>Ratios and Proportional Relationships</p> <ul style="list-style-type: none"> Solves problems involving equivalent fractions Solves 1-step problems involving proportions Calculates basic percents of a number (e.g., 10%, 20%, 25%, 50%, 100%) Converts between inches and feet Converts between inches, feet, and yards Solves simple problems involving measurement of length Converts between cups, pints, quarts, and gallons Apply dimensional analysis to simple real-world problems (capacity) Computes more difficult conversions among units of time Applies dimensional analysis to simple real-world problems (time) Solves simple problems involving miles per gallon Determines unit price Solves problems involving rates Writes a basic percent as a fraction and vice versa (e.g., 10%, 25%, 50%, 100%) Expresses a percent as a fraction with 100 as the denominator and vice versa Recognizes and writes proportions Identifies the percent represented in a 2-D region
<p>Perform Operations</p> <ul style="list-style-type: none"> Uses rounding to estimate answers to real-world problems involving numbers less than 1000 with addition and subtraction (whole numbers only) Uses rounding to estimate answers to addition and subtraction problems (whole numbers only) Adds two 3- and/or 4-digit numbers, with regrouping, with sums over 1000 Adds multiple-digit numbers, with regrouping, with sums over 1000 Adds multiple-digit numbers with sums under 1000 Solves real-world whole number addition problems with sums to 20 (result unknown) - with extraneous information given Solves real-world whole number addition problems with sums to 20 (change unknown) Solves whole number addition word problems with sums over 1000 Subtracts 1-digit number from a 2-digit number with regrouping Subtracts a 2-digit number from a 2-digit number, with regrouping Uses strategies for sums and differences with 2-digit numbers (e.g., decomposing, compatible, compensation, partial sums, counting on) 	<p>Perform Operations</p> <ul style="list-style-type: none"> Uses rounding to estimate answers to real-world problems involving numbers 1000 or greater with addition and subtraction (whole numbers only) Uses rounding to estimate answers to addition and subtraction problems (whole numbers only) Adds multiple-digit numbers, with regrouping, with sums over 1000 Adds multiple-digit numbers with sums under 1000 Performs mental computation with more than 4 addends Subtracts 3- or 4-digit numbers with regrouping Subtracts numbers with 5 digits or more with regrouping Solves real-world whole number problems involving subtraction with numbers 100 and under (analysis) Solves problems using the inverse relationship between addition and subtraction Instantly recalls basic multiplication and division facts in a table Multiplies a 2-digit number by a 1-digit number with regrouping Multiplies a 3- or 4-digit number by a 1-digit number Multiplies multiple 1-digit numbers 	<p>Perform Operations</p> <ul style="list-style-type: none"> Uses rounding to estimate answers to real-world problems involving multiplication and division of numbers less than 100 (whole numbers only) Uses rounding to estimate answers to real-world problems involving numbers less than 1000 with multiplication and division (whole numbers only) Uses rounding to estimate answers to real-world problems involving numbers 1000 or greater using multiplication and division (whole numbers only) Uses rounding to estimate answers to difficult multiplication and division problems (whole numbers only) Subtracts numbers with 5 digits or more with regrouping Instantly recalls basic multiplication and division facts in a table Multiplies a 2-digit number by a 2-digit number with regrouping Multiplies a 3-digit number by a 2-digit number with regrouping Performs mental computation with multiplication Uses multiplication strategies to explain computation (e.g., doubles, 9-patterns, decomposing, partial products)

Explanatory Notes

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<p>Perform Operations</p> <ul style="list-style-type: none"> Subtracts a 2-digit number from a 3-digit number with a single regrouping Subtracts 3- or 4-digit numbers with regrouping Performs mental subtraction with numbers under 1000 Subtracts multiple-digit numbers with no regrouping Solves real-world whole number problems involving subtraction with numbers 100 and under Solves problems using the inverse relationship between addition and subtraction Instantly recalls basic multiplication facts where one factor is 6-12 and the other factor is 0-12 Multiplies a 2- or 3-digit number by a 1-digit number with no regrouping Multiplies a 2-digit number by a 1-digit number with regrouping Multiplies a 3- or 4-digit number by a 1-digit number Multiplies a 2-digit number by a 2-digit number with no regrouping Performs mental computation with multiplication Solves word problems involving basic whole number multiplication facts to 10×10 Solves word problems involving whole number multiplication with numbers greater than 10×10 Uses manipulatives to divide a small set of objects into groups of equal size Models whole number multiplication and division algorithms (e.g., shows multiplication as repeated addition and division as repeated subtraction) Instantly recalls division facts with dividend and divisors less than 10 Instantly recalls division facts with dividend and divisors less than 13 Divides a 2-digit number by a 1-digit number with no remainder Solves word problems with whole number division facts with dividend and divisors less than 11 Solves simple word problems involving whole number division with remainder (e.g., 1-step, 1-digit divisor) Uses models to add and subtract fractions and connect the actions to algorithms Subtracts fractions with like denominators without reducing Solves real-world 1-step problems involving addition and subtraction of fractions with like denominators Solves real-world 1-step problems involving multiplication or division of a whole number by a fraction Adds decimals to the hundredths place (same number of digits) 	<p>Perform Operations</p> <ul style="list-style-type: none"> Multiplies a 2-digit number by a 2-digit number with regrouping Multiplies a 3-digit number by a 2-digit number with regrouping Performs mental computation with multiplication Multiplies a 2- or 3-digit number by multiples of 10 or 100 Multiplies a 3-digit number by a 3-digit number Solves word problems involving whole number multiplication with numbers greater than 10×10 Models whole number multiplication and division algorithms (e.g., uses physical materials to show 4 groups of 3 objects) Instantly recalls division facts with dividend and divisors less than 13 Divides a 2-digit number by a 1-digit number with no remainder Divides a 2-digit number or a 3-digit number by a 1-digit number with a remainder Performs mental computation with division Divides a 3-digit number by a 1-digit number with no remainder Divides a 4-digit number by a 1-digit number with no remainder Divides a 3-digit number by a multiple of 10 Divides a 4-digit number by a 2-digit number Solves word problems with whole number division facts with dividend and divisors less than 11 Solves simple word problems involving whole number division with remainder (e.g., 1-step, 1-digit divisor) Solves whole number word problems with division over 10×10 Determines the remainder in a real-world problem (whole numbers) Uses division for multiple-step real-world problems (whole numbers) Solves real-world problems involving 2-step multiple operations, whole numbers only Adds fractions with like denominators without reducing Adds whole numbers and fractions Uses models to add and subtract fractions and connect the actions to algorithms Subtracts fractions with like denominators without reducing Subtracts mixed fractions with like denominators with no regrouping Solves real-world 1-step problems involving addition and subtraction of fractions with like denominators Multiplies a fraction by a fraction without reducing to simplest form (simple problem) Adds decimals to the thousandths place horizontally with and without regrouping 	<p>Perform Operations</p> <ul style="list-style-type: none"> Multiplies a 3-digit number by a 3-digit number Multiplies a 4- or more digit number by multiples of 100 or 1000 Multiplies multiple-digit numbers Models whole number multiplication and division algorithms (e.g., uses physical materials to show 4 groups of 3 objects) Divides a 2-digit number or a 3-digit number by a 1-digit number with a remainder Performs mental computation with division Divides a 4-digit number by a 1-digit number with no remainder Divides a 3-digit number by a 2-digit number Divides a 4-digit number by a 2-digit number Divides multiple-digit numbers Solves whole number word problems with division over 10×10 Solves complex word problems involving whole number division with remainder (e.g., 2-step, 2-digit divisor) Solves real-world problems involving 2-step multiple operations, whole numbers only Solves real-world multiple-step problems involving whole numbers Demonstrates an understanding of the inverse relationship between addition and subtraction Adds fractions with like denominators without reducing Adds fractions with like denominators with reducing or converting to a mixed fraction Adds fractions with unlike denominators without reducing Adds simple mixed fractions with unlike denominators (e.g., halves, thirds, fourths, eighths) Subtracts simple fractions with unlike denominators without reducing (e.g., halves, quarters, thirds, eighths) Subtracts fractions with unlike denominators without reducing Subtracts mixed fractions with like denominators with no regrouping Subtracts mixed fractions with unlike denominators with no regrouping Solves real-world problems involving addition and subtraction of fractions where converting one denominator is necessary Uses models to multiply and divide fractions and connect the actions to algorithms Multiplies a fraction by a fraction where reducing to simplest form is necessary Multiplies a fraction by a whole number Solves 1-step real-world problems involving fractions with multiplication and division

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<p>Perform Operations</p> <ul style="list-style-type: none"> • Adds decimals to the hundredths place in vertical format (not same number of digits) • Adds decimals to the thousandths place vertically with and without regrouping • Identifies the value of a collection of coins to \$1.00 (without picture of coins) • Adds money with regrouping • Identifies the value of a collection of coins and bills to \$10.00 by counting on (without picture of money) • Finds equivalent combinations of coins with the same value • Subtracts decimals to the hundredths place (same number of digits) with regrouping • Subtracts decimals to the thousandths place, vertically, with and without regrouping • Makes change to \$1.00 by counting on or subtracting • Solves real-world problems involving decimals (not money) using addition and subtraction • Computes with dollars and cents up to and including \$5.00 and converts to decimals (addition/subtraction only) • Computes 1 operation on real-world problems involving money over \$5.00 (addition/subtraction only) • Multiplies a decimal by whole number • Computes with dollars and cents up to and including \$5.00 and converts to decimals (multiplication/division) • Computes 1 operation on real-world problems involving money over \$5.00 (multiplication/division) • Computes basic operations with units of weight/mass • Identifies the correct time, given the words, and vice versa • Determines elapsed clock time • Tells time to the nearest quarter hour • Determines elapsed time involving whole hours, whole days, whole years • Tells time to the nearest 1 minute • Solves simple problems involving elapsed time, with the conversion of hours • Determines the operation needed from a simple problem • Solves problems using tables • Distinguishes between odd and even numbers • Identifies numbers as composite 	<p>Perform Operations</p> <ul style="list-style-type: none"> • Subtracts decimals to the hundredths place (same number of digits) with regrouping • Subtracts decimals to the thousandths place, vertically, with and without regrouping • Subtracts decimals through the hundred-thousandths place, vertically • Computes the value of multiple bills and coins (addition/subtraction only) • Multiplies a decimal by whole number • Divides decimal by a whole number • Computes with dollars and cents up to and including \$5.00 and converts to decimals (multiplication/division) • Computes addition and subtraction on multiple-step real-world problems involving money • Computes money problems with multiple operations (addition/subtraction only) • Computes addition, subtraction, multiplication, and division on multiple-step, real-world problems involving money • Solves real-world problems involving addition and subtraction of integers • Solves problems involving measurement of time • Solves simple problems involving elapsed time, with the conversion of hours • Solves problems using tables • Writes a terminating decimal as a fraction or mixed number • Expresses the equivalent form of a fraction, decimal, and/or percent (simple fraction) 	<p>Perform Operations</p> <ul style="list-style-type: none"> • Adds decimals to the hundredths place in horizontal format (not same number of digits) • Adds decimals to the thousandths place horizontally with and without regrouping • Adds decimals through the hundred-thousandths place • Subtracts decimals to the thousandths place, horizontally, with and without regrouping • Computes the value of multiple bills and coins (addition/subtraction only) • Analyzes and computes 1 operation on real-world problems involving money over \$5.00 (addition/subtraction only) • Multiplies a decimal by a decimal, vertical form (factors to tenths or hundredths) • Multiplies a decimal by a decimal (factors to hundredths) • Divides decimal by a whole number • Analyzes and computes 1 operation on real-world problems involving money over \$5.00 (multiplication/division) • Computes with dollars and cents over \$5.00 and converts to decimals (multiplication/division) • Computes addition and subtraction on multiple-step real-world problems involving money • Computes addition, subtraction, multiplication, and division on multiple-step, real-world problems involving money • Adds integers with like signs • Uses models to add and subtract integers and connect the actions to algorithms • Solves real-world problems involving addition and subtraction of integers • Multiplies integers with unlike signs • Divides integers with unlike signs • Divides integers with like signs • Demonstrates an understanding that division by 0 is undefined • Solves difficult problems involving elapsed time, with the conversion of hours • Selects and uses the appropriate units depending on degree of accuracy required to solve problems • Expresses a simple fraction as a decimal • Writes a simple mixed fraction as a decimal and vice versa • Writes a fraction or mixed number as a decimal when the denominator is a multiple of 10 • Expresses a percent as a decimal and vice versa

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<p>Perform Operations</p>	<p>Perform Operations</p>	<p>Perform Operations</p> <ul style="list-style-type: none"> Expresses the equivalent form of a fraction, decimal, and/or percent (simple fraction) Determines factors of whole numbers Identifies numbers as prime Identifies common factors of two or more numbers Identifies the greatest common factor of whole numbers
<p>Extend and Use Properties</p> <ul style="list-style-type: none"> Determines and names locations in the first quadrant on a labeled grid or coordinate system (e.g., map or graph) Identifies whole numbers over 999 using base-10 blocks Identifies the numeral and written name for whole numbers with a zero between digits to the ten thousands place Identifies the numeral and written name for whole numbers 10,000 to 100,000 Identifies the numeral and written name for whole numbers over 100,000 Compares whole numbers to 100, using the symbols for 'less than', 'equal to', or 'greater than' (<, =, >) Compares whole numbers through the thousands using the symbols <, >, or = Rounds 2- and 3- digit whole numbers to the nearest ten Rounds 3-digit whole numbers to the nearest hundred Identifies whole numbers under 100 given place value terms (e.g., 3 tens and 4 ones = 34) Identifies the place value and value of each digit in whole numbers through the thousands Identifies the place value and value of each digit in whole numbers through the hundred thousands Writes whole numbers in standard and expanded form through the hundreds Writes whole numbers in standard and expanded form through the thousands Represents $\frac{1}{3}$ with a diagram or model Represents fractions with denominators other than 2, 3, 4 with a diagram or model Identifies $\frac{1}{4}$ from a region or set Identifies $\frac{1}{3}$ from a region or set Identifies $\frac{2}{3}$ or $\frac{3}{3}$ from a region or set Identifies tenths from a region or set 	<p>Extend and Use Properties</p> <ul style="list-style-type: none"> Graphs ordered pairs in the first quadrant Determines and names locations in the first quadrant on a labeled grid or coordinate system (e.g., map or graph) Determines the distance between horizontal and vertical lines in the first quadrant of a rectangular coordinate system Determines the distance between points, following grid lines, in the first quadrant on a coordinate graph (as in city blocks) Locates the origin on a coordinate grid Identifies whole numbers over 999 using base-10 blocks Identifies the numeral and written name for whole numbers with a zero between digits to the ten thousands place Identifies the numeral and written name for whole numbers over 100,000 Compares whole numbers through the billions using the symbols <, >, or = Orders whole numbers a million or greater using < or > symbols Rounds 4-, 5-, and 6-digit whole numbers to the nearest ten Rounds 4-, 5-, and 6-digit whole numbers to the nearest hundred Rounds 4-, 5-, and 6-digit whole numbers to the nearest thousand Rounds whole numbers to the nearest hundred thousand Rounds wholes numbers to the nearest billion Explains the rules for rounding Writes equivalent forms of whole numbers using place value (e.g., 54 = 4 tens and 14 ones) Identifies the place value and value of each digit in whole numbers through the billions Writes whole numbers in standard and expanded form through the hundred thousands Applies base ten place value concepts with whole numbers to solve problems Writes whole numbers using place value terms and vice versa Identifies halves of a region using nonadjacent parts 	<p>Extend and Use Properties</p> <ul style="list-style-type: none"> Predicts the relative size of the answer when computing with 10's, 100's, 1000's Predicts the relative size of the answer when multiplying whole numbers Determines the distance between horizontal and vertical lines in the first quadrant of a rectangular coordinate system Locates the origin on a coordinate grid Rounds 4-, 5-, and 6-digit whole numbers to the nearest hundred Rounds 4-, 5-, and 6-digit whole numbers to the nearest thousand Rounds 4-, 5-, and 6-digit whole numbers to the nearest ten thousand Rounds wholes numbers to the nearest billion Writes whole numbers in standard and expanded form through the hundred thousands Identifies equivalent fractions using visual representations Identifies a fractions in lowest terms from a region or set Identifies eighths, reduced to lowest terms, from a region or set Determines simple equivalent fractions using multiples Converts fractions to lowest terms Writes mixed numbers as improper fractions and improper fractions as mixed numbers Compares fractions on a number line Compares fractions greater than or less than a given fraction using visual representations Compares fractions and mixed numbers Compares fractions and mixed numbers using symbols Orders fractions on a number line Explains different interpretations of fractions (e.g., parts of a whole, parts of a set, and division of whole numbers by whole numbers) Represents a decimal to the hundredths place (e.g., three hundredths = 0.03) Compares and orders decimals past the thousandths place Rounds decimals to the nearest whole number

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<p>Extend and Use Properties</p> <ul style="list-style-type: none"> Identifies a fraction (denominators other than 2, 3, 4, 8, 10) from a region or set Identifies equivalent fractions using visual representations Matches numeric and visual representation of equivalent fractions Explains different interpretations of fractions (e.g., parts of a whole, parts of a set, and division of whole numbers by whole numbers) 	<p>Extend and Use Properties</p> <ul style="list-style-type: none"> Identifies equivalent fractions using visual representations Expresses 1 in many different ways (e.g., 3/3, 4/4) Converts a basic fractional numeral to lowest terms (e.g., halves, thirds, quarters) Writes mixed numbers as improper fractions and improper fractions as mixed numbers Compares fractions (e.g., common denominator, 1 in the numerator, denominator is 2, 3, 4, 6, 8, 10) Orders fractions on a number line Explains different interpretations of fractions (e.g., parts of a whole, parts of a set, and division of whole numbers by whole numbers) Identifies a decimal on a number line to the tenths place Rounds decimals to the nearest whole number Compares integers on a number line 	<p>Extend and Use Properties</p> <ul style="list-style-type: none"> Rounds decimals to the nearest tenth Applies base ten place value concepts to solve problems using decimals Identifies an integer from a number line Compares two integers Orders integers on a number line Defines integers
<p><i>New Vocabulary:</i> billion, composite number, decade, deposit, each, grid, hundred million, miles per hour, prime number, quintillion, standard numeral, trillion</p>	<p><i>New Vocabulary:</i> biggest, coordinate, coordinate point, expanded numeral, larger, miles per gallon, origin</p>	<p><i>New Vocabulary:</i> century, coin, common factor, decimal form, greatest common factor, how long, lowest term, lowest terms, reduce, triple</p>
<p><i>New Signs and Symbols:</i> () ordered pair, °F degrees Fahrenheit, g gram, > greater than, lb pound, < less than, min minute, mph miles per hour, % percent, • point, R remainder</p>	<p><i>New Signs and Symbols:</i> ft feet, in. inch, mpg miles per gallon, - negative number</p>	<p><i>New Signs and Symbols:</i> \$ dollar sign, hr hour, kg kilogram, - negative sign, ≠ not equal to, yd yard</p>

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