

Scope and Sequence **5th Grade**

Excel
Math

AnsMar Publishers, Inc.

(K-6) CURRICULUM

Scope and Sequence

by lesson number

PLACE VALUE AND COUNTING

Place value

- 1 Recognizing numbers less than a million
- 65 Recognizing tenths and hundredths places
- 80 Recognizing places up through trillions
- 80 Recognizing numbers given in expanded notation
- 121 Recognizing the thousandths place

Recognizing number words

- 1 Recognizing any number less than a million
- 13 Recognizing ordinals up to 100
- 65 Recognizing decimal number words
- 80 Recognizing numbers up through trillions
- 108 Recognizing Roman Numerals I, V, X, L, C, D, M

Missing number series

- 6 Filling in missing numbers in two or three-digit sequences counting by 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10
- 87 Filling in missing numbers in sequences counting by 11 or 12
- 104 Filling in missing numbers in sequences counting by varying amounts
- 111 Filling in missing numbers in a sequence of decimal numbers

Putting numbers in order

- 6 Arranging 4 four-digit numbers in order from least to greatest and from greatest to least
- 43 Putting simple fractions in order from least to greatest and greatest to least
- 98 Putting decimal numbers in order from least to greatest and greatest to least
- 148 Arranging fractions, decimals and mixed numbers on a number line

ADDITION OF WHOLE NUMBERS

- 1 Adding 4 four-digit numbers with regrouping; recognizing addition and subtraction fact families;
- 32 Learning about the Commutative Property of Addition
- 96 Learning about the Associative Property of Addition

SUBTRACTION OF WHOLE NUMBERS

- 1 Subtracting 2 three-digit numbers with regrouping; recognizing addition and subtraction fact families
- 3 Subtracting four-digit numbers with regrouping

MULTIPLICATION OF WHOLE NUMBERS

Multiplication facts

- 2 Learning the multiplication facts with products up through 30 and products with 5 (up to 45), 10 (up to 90), 11 (up to 99) or 12 (up to 48) as a factor
- 11 Recognizing multiplication and division fact families
- 16 Learning multiplication facts with products up to 50
- 28 Learning multiplication facts with products less than 100 with 12 as a factor
- 28 Recognizing multiples
- 38 Determining the lowest common multiple
- 38 Learning multiplication facts with products with 11 (up to 121) and 12 (up to 144) as a factor

One-digit multiplier, two or more digit multiplicand

- 2 Multiplying a one-digit times a two or three-digit number

Two-digit multiplier

- 22 Multiplying 2 two-digit numbers, no regrouping
- 24 Multiplying 2 two-digit numbers, regrouping only with the ones or the tens place
- 36 Multiplying 2 two-digit numbers, regrouping twice
- 107 Multiplying a three-digit number by a two-digit number

Three-digit multiplier

- 139 Multiplying a three-digit number times a three-digit number

Other

- 11 Learning the terminology for multiplication
- 32 Learning about the Commutative Property of Multiplication
- 96 Learning about the Distributive and Associative Properties of Multiplication
- 153 Multiplying mixed numbers

DIVISION OF WHOLE NUMBERS

Division facts, no remainders

- 11 Recognizing multiplication and division fact families
- 11 Learning division facts with dividends to 30, dividends with 5 as a factor and dividends that are multiples of 10 (to 90), 11 (to 99) or 12 (to 48)
- 28 Learning division facts with dividends up through 50

- 49 Learning division facts with dividends up to 81 and dividends less than 100 with 12 as a factor
- 61 Determining factors
- 62 Determining composite numbers, prime numbers and prime factors
- 73 Learning division facts with dividends up to 121 with 11 as a factor and up to 144 with 12 as a factor
- 88 Determining the greatest common factor
- 93 Determining if a number is a prime number

Division facts, remainders

- 29 Learning division facts with remainders with dividends up to 30 and dividends with 5 as a factor
- 38 Learning division facts with remainders with dividends to 50
- 71 Learning division facts with remainders with dividends to 81

One-digit divisor & two or more digit quotient

- 21 Dividing a one-digit divisor into a two or three-digit dividend with a two or three-digit quotient, no regrouping or remainders
- 26 Dividing a one-digit divisor into a three-digit dividend with a two-digit quotient, no regrouping or remainders
- 27 Continued - Dividing a one-digit divisor into a three-digit dividend with a two-digit quotient, no regrouping or remainders
- 33 Dividing a one-digit divisor into a three-digit dividend, with a two-digit quotient with regrouping and remainders
- 34 Continued - Dividing a one-digit divisor into a three-digit dividend, with a two-digit quotient with regrouping and remainders
- 41 Dividing money by a one-digit divisor
- 46 Dividing a one-digit divisor into a four-digit dividend with a three-digit quotient and a zero in the tens place
- 47 Continued - Dividing a one-digit divisor into a four-digit dividend with three-digit quotient and zero in tens place
- 101 Short division
- 105 Calculating a decimal answer in division problems when zeroes need to be added to the right of the dividend
- 147 Simplifying division problems by powers of ten

Two-digit divisor

- 49 Dividing with a two-digit divisor into a dividend less than 100 with remainders
- 128 Dividing a two-digit divisor into a three-digit dividend with a two-digit quotient
- 141 Dividing a two-digit divisor into a three-digit dividend with a one-digit quotient

Three-digit divisor

- 119 Dividing with a three-digit divisor into a three or four-digit dividend with a one-digit quotient

Other

- 11 Learning the terminology for division
- 77 Recognizing division without the \div symbol
- 101 Dividing dollars by dollars
- 147 Dividing a decimal number by a decimal number
- 153 Dividing mixed numbers

FRACTIONS

- 9 Computing half of a group
- 15 Recognizing the numerator and denominator
- 15 Determining the fractional part of a group of items when modeled or given in words, sometimes with extraneous information or the word "not"
- 15 Learning that the whole is the sum of its parts
- 15 Adding and subtracting fractions
- 23 Adding and subtracting fractions and mixed numbers with like denominators
- 31 Determining equivalent fractions using models or money
- 39 Calculating equivalent fractions using multiplication
- 43 Comparing fractions
- 44 Computing $\frac{1}{2}$ to $\frac{1}{9}$ of a group
- 50 Addition and subtraction of fractions with unlike denominators
- 59 Calculating equivalent fractions using division
- 60 Writing mixed numbers as decimals
- 68 Changing an improper fraction to a mixed number
- 69 Addition and subtraction of fractions in word problems
- 76 Simplification of fractions

- 77 Converting improper fractions as part of mixed numbers
- 78 Determining the improper fraction with the greatest or least value in a set of fractions
- 78 Putting fractions in order from least to greatest and greatest to least
- 83 Converting fractions to percent by setting up equivalent fractions
- 99 Converting an improper fraction as part of a mixed number
- 106 Selecting the fraction that best represents a shaded region
- 110 Multiplying fractions and whole numbers by fractions
- 110 Comparison of fractions in word problems
- 113 Converting mixed numbers to decimal numbers by setting up equivalent fractions
- 115 Multiplication of whole numbers and fractions by fractions
- 117 Writing probabilities as lowest-terms fractions
- 118 Calculating reciprocals
- 122 Subtracting fractions with regrouping
- 126 Cross simplification of fraction multiplication problems
- 127 Converting mixed numbers to improper fractions
- 129 Division of fractions
- 133 Multiplying mixed numbers
- 135 Calculating averages with fractions
- 136 Converting fractions to decimals using division
- 147 Dividing a decimal number by a decimal number
- 148 Arranging fractions, decimals, and mixed numbers on a number line
- 153 Multiplication and division of mixed numbers

MONEY

- 3 Recognizing the dollar symbol and decimal point
- 3 Regrouping with money amounts when adding, subtracting or multiplying money amounts
- 4 Learning the change equivalents up to a dollar
- 4 Recognizing coins
- 3 Recognizing money number words
- 4 Solving word problems using mental multiplication of coins
- 4 Calculating change using the least number of coins
- 41 Rounding to the nearest dollar
- 41 Dividing money by a one-digit number
- 79 Dividing dollars by dollars

- 97 Calculating cost per unit
- 107 Multiplying a money amount by a two-digit multiplier
- 149 Computing sales tax

DECIMALS

- 65 Recognizing tenths and hundredths places, recognizing decimal number words
- 65 Writing decimal numbers as mixed numbers
- 66 Adding and subtracting decimals
- 81 Multiplying a decimal number by a whole number
- 82 Solving equations involving decimals
- 83 Converting decimals to percent by setting up equivalent fractions
- 85 Comparing decimal numbers in true and not true statements and in less than and greater than problems
- 94 Dividing decimal numbers by a whole number
- 98 Putting decimal numbers in order from least to greatest and greatest to least
- 100 Word problems involving decimals
- 100 Calculating a decimal answer in division problems when zeroes need to be added to the right of the dividend
- 105 Comparing decimal numbers in true and not true statements and in less than and greater than problems
- 107 Multiplying a three-digit decimal number by a two-digit number
- 111 Filling in a missing number in a sequence counting by decimal numbers
- 113 Converting mixed numbers to decimal numbers by setting up equivalent fractions
- 120 Multiplying and dividing decimal numbers by powers of 10
- 121 Recognizing the thousandth place
- 121 Rounding decimal numbers to the nearest tenth or hundredth
- 125 Selecting the decimal that represents a shaded region
- 131 Computing products involving two decimal numbers
- 132 Continued - Computing products involving two decimal numbers
- 136 Converting fractions to decimals using division
- 135 Calculating averages with decimals
- 147 Dividing a decimal number by a decimal number
- 148 Arranging fractions, decimals, and mixed numbers on a number line

PERCENT

- 83 Converting fractions and decimals to percent by setting up equivalent fractions
- 109 Determining percent in a word problem
- 112 Converting percents to decimals
- 112 Computing the percent of a whole number
- 116 Percent pie graph
- 125 Selecting the percent that represents a shaded region
- 130 Solving word problems involving percent
- 149 Computing sales tax

TIME - CLOCK

- 8 Telling time to the minute
- 8 Recognizing a quarter past or to the hour or half past the hour
- 8 Calculating minutes before the hour
- 8 Learning 60 minutes = 1 hour
- 8 Calculating elapsed time
- 57 Calculating elapsed time (hours) involving AM and PM
- 73 Calculating elapsed time in minutes across the 12 on the clock

TIME - CALENDAR

- 7 Computing the date
- 7 Learning 7 days = 1 week
- 7 Learning the abbreviations for days and months
- 7 1 year = ____ months
- 7 Learning the number of days in each month
- 51 Learning the equivalent for one year in days
- 51 Learning the equivalent for one year in weeks
- 51 Learning about leap year
- 51 Calculating elapsed time crossing months

ODD AND EVEN NUMBERS

- 9 Recognizing odd and even numbers less than 100
- 87 Recognizing three-digit odd and even numbers

WORD PROBLEMS

- 2 Solving multi-step story problems using addition and subtraction
- 4 Solving word problems using mental multiplication of coins

- 10 Solving word problems using deductive reasoning
- 10 Determining if there is sufficient information to answer the question
- 10 Determining what information is needed to answer a question
- 10 Solving word problems using reasoning
- 16 Solving word problems using multiplication and division
- 29 Solving word problems involving division with remainders
- 30 Estimating range for an answer using rounding to the nearest ten, hundred or thousand
- 30 Estimating the answers for addition, subtraction and multiplication word problems using rounding to the nearest ten, hundred or thousand
- 32 Selecting the correct equation
- 55 Calculating the answer to a word problem using 2 to 1 and 5 to 1 ratios
- 58 Solving word problems by listing the possibilities
- 63 Solving word problems involving area and perimeter
- 70 Determining what the question is given the information & the answer
- 70 Estimating which answer is most reasonable
- 74 Calculating distance, time and speed in word problems
- 82 Estimating answers to problems involving nine-digit numbers
- 97 Calculating unit cost
- 100 Solving word problems involving decimals
- 102 Calculating averages
- 103 Continued - calculating averages
- 114 Reading maps drawn to scale
- 115 Calculating the mean, mode and median
- 130 Solving word problems involving percent
- 133 Solving word problems involving multiplication of fractions
- 135 Calculating averages involving decimals or fractions

MEASUREMENTS

- 12 Estimating standard measurements
- 12 Reading measuring devices
- 17 Learning the equivalents for feet, inches and yards
- 48 Learning the equivalents for meters, centimeters, kilometers, grams, kilograms, liters, milliliters, millimeters, gallons, pounds, tons, dozen
- 48 Converting measurements using multiplication

- 48 Determining the measurement that is longer or shorter or heavier or lighter
- 54 Learning length abbreviations
- 58 Converting measurements using division
- 67 Comparing US customary and metric units
- 103 Learning the abbreviations for quarts, gallons, kilograms, grams, pounds and ounces, liters, milliliters and millimeters

GEOMETRY

- 17 Measuring line segments to the nearest half inch, quarter inch and half centimeter
- 20 Recognizing three-dimensional figures - sphere, cube, cone, cylinder, rectangular, square and triangular pyramid and rectangular prism
- 20 Learning the terminology of flat and curved faces, vertices and edges
- 30 Estimating and measuring angles
- 30 Learning the sum of the angles for a rectangle and a triangle
- 30 Recognizing right, obtuse and acute angles
- 30 Recognizing equilateral, isosceles and scalene triangles
- 35 Learning the terminology of parallel, intersecting and perpendicular lines
- 35 Learning the terminology of plane figure, polygon, quadrilateral, parallelogram, and diagonal
- 42 Learning the terminology of pentagon, hexagon, octagon
- 42 Recognizing patterns
- 42 Determining figures that do and do not belong in a set
- 45 Recognizing lines of symmetry
- 45 Recognizing bilateral and rotational symmetry
- 45 Recognizing when figures are similar or congruent figures; recognizing flips, turns and slides
- 54 Recognizing the symbol for a triangle
- 54 Calculating perimeters
- 56 Calculating the area of a rectangle
- 63 Solving word problems involving area and perimeter
- 71 Learning the terminology of rhombus and trapezoid
- 75 Recognizing the parts of a circle
- 75 Calculating the diameter, given the radius
- 75 Associating the 360 degrees in a circle with one-quarter, one-half, three-quarter and full turns
- 72 Calculating the volume of a rectangular prism with one or more layers of cubes
- 84 Calculating the volume of a rectangular prism using the

formula $L \times W \times H$

- 86 Recognizing the pattern in a sequence of figures or pattern of shading
- 95 Calculating area and perimeter given coordinates on a coordinate grid
- 95 Calculating the perimeter of an irregular figure
- 134 Calculating the area of a parallelogram
- 137 Calculating the surface area of a rectangular prism
- 144 Calculating the area of a triangle
- 145 Calculating the circumference or area of a circle
- 145 Recognize π
- 152 Calculating the area of an irregular figure

ESTIMATING

- 25 Rounding to the nearest ten, hundred or thousand
- 25 Estimating range for an answer
- 25 Rounding numbers so there is only one non-zero digit
- 41 Rounding to the nearest dollar
- 67 Estimating length, weight or volume
- 70 Estimate which answer is most reasonable
- 82 Estimating answers to problems up to nine-digit numbers
- 92 Estimating to the nearest dollar or whole number
- 121 Rounding decimal numbers to the nearest tenth or hundredth

PRE-ALGEBRA

- 6 Recognizing the symbols $<$ less than and $>$ greater than
- 13 Completing patterns in a chart
- 14 Filling in a missing number in an equation; determining the value of a letter that has been substituted for a number
- 14 Selecting the correct operation
- 18 Filling in missing numbers in equations with parentheses
- 18 Learning the order of operations when solving an equation
- 14 Solving an equation
- 19 Moving the numbers in a number sentence in order to change from \neq to $=$
- 19 Finding the value of an unknown by performing the same operation on both sides of an equation
- 32 Selecting the correct equation
- 37 Recognizing true and not true equations
- 37 Selecting the correct symbol for a number sentence
- 37 Using trial and error to replace letters with numbers in an equation
- 52 Determining coordinate points

- 53 Using Venn diagrams to understand the union and intersection of sets
- 55 Recognizing multiplication without the "x" symbol
- 64 Measuring vertical or horizontal lines by subtracting X or Y coordinates
- 77 Recognizing division without the ":" symbol
- 82 Solving equations involving decimals
- 89 Comparing positive and negative numbers
- 91 What number is a multiple of 4 and a factor of 32
- 90 Determining if coordinate points are on a given line
- 96 Property of one
- 96 Zero property
- 123 Determining negative numbers using coordinate points
- 124 Determining the equation that reflects a problem and the one that solves the problem
- 138 Calculating using exponents
- 140 Identifying the equation that represents a line on a coordinate graph
- 143 Determining the equation that creates a pattern
- 150 Adding positive and negative numbers
- 151 Continued - Adding positive and negative numbers
- 154 Subtracting positive and negative numbers
- 155 Continued - Subtracting positive and negative numbers

PROBABILITY

- 60 Determining the probability of an event
- 60 Comparing probabilities
- 117 Writing probabilities as lowest-terms fractions
- 142 Computing expected numbers based on probabilities

GRAPH

- 5 Interpreting bar graphs, line graphs and picture graphs
- 40 Comparing two or more sets of data using bar or line graphs
- 40 Interpreting information given in a histogram
- 116 Percent pie graphs

STATISTICS

- 102 Calculating averages
- 103 Continued - calculating averages
- 115 Calculating the mean, median and mode
- 115 Stem and leaf plots
- 135 Calculating averages involving decimals or fractions

Scope and Sequence

Of Activities and Stretches

GRAPH BUILDING

Activities

G I, G II, G III, G IV, G V, G VI

LOGIC PUZZLES

Stretch

34, 37, 40, 42, 46, 50, 51, 64, 73, 74, 81, 84, 86,
88, 97, 98, 108, 112, 120, 127

PRE ALGEBRA

Activities

A8, A11

Stretch

9, 15, 19, 20, 28, 31, 39, 45, 52, 56, 67, 69, 75,
76, 80, 87, 89, 93, 95, 96, 99, 104, 109, 114,
126, 129

REASONING

Activities

A6, A12

Stretch

23, 27, 29, 33, 38, 41, 47, 49, 55, 59, 70, 72, 83,
101, 115, 117, 121, 133, 134, 139, 144, 147,
149, 154, 155

REASONING USING COMPUTATION

Stretch

3, 6, 7, 8, 11, 13, 21, 25, 26, 30, 90, 92, 102,
105, 106, 113, 116, 122, 130, 136, 138, 148,
152, 153

REASONING USING CALENDARS

Stretch

10, 18, 43

REASONING USING DEDUCTION

Activities

A2

Stretch

1, 2, 54, 57, 61

REASONING USING GEOMETRY

Activities

A3, A5, A7, A9, A10

Stretch

4, 24, 32, 36, 44, 53, 58, 60, 65, 66, 78, 82, 94,
100, 107, 110, 118, 119, 123, 125, 131, 135,
137, 140, 141, 150

REASONING USING POSSIBILITIES

Activity

A1, A4

Stretch

5, 14, 22, 71, 85, 91, 103, 111, 132, 142, 146

REASONING USING PATTERNS

Stretch

12, 16, 17, 35, 48, 62, 63, 68, 77, 79, 124

REASONING USING VENN DIAGRAMS

Stretch

145, 151

REASONING USING ROMAN NUMERALS

Stretch

125, 143