

Excel Math

AnsMar Publishers, Inc.

(K - 6) CURRICULUM

4th Grade Scope & Sequence

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Scope & Sequence of Lessons

by lesson number

Lesson Concept

PLACE VALUE AND COUNTING

Place value

- 1 Recognizing the thousands, hundreds, tens and ones place
- 50 Recognizing numbers less than a million given in words, expanded notation or place value
- 85 Recognizing tenths and hundredths places
- 102 Recognizing places up through trillions
- 131 Recognizing the thousandths place

Recognizing number words

- 3 Recognizing any number less than 1,000
- 7 Recognizing any number less than 10,000
- 22 Recognizing numbers greater than 1,000
- 46 Recognizing ordinals up to 100
- 50 Recognizing numbers up to 999,999
- 85 Recognizing decimal number words
- 102 Recognizing numbers up through trillions
- 126 Recognizing Roman Numerals I, V, X, L, C, D, M

Missing number series

- 6 Filling in missing numbers in sequences counting by 1, 2, 3, 4, 5, or 10
- 23 Filling in missing numbers in sequences counting by 6, 7, 8, or 9
- 48 Filling in missing numbers in sequences involving three-digit numbers
- 103 Filling in missing numbers in sequences counting by 11 or 12
- 113 Filling in missing numbers in sequences counting by varying amounts
- 117 Filling in missing numbers in a sequence of decimal numbers

Putting numbers in order

- 8 Arranging 4 four-digit numbers in order from least to greatest and from greatest to least
- 105 Putting decimals numbers in order from least to greatest and greatest to least
- 145 Arranging fractions, decimals and mixed numbers on a number line

ADDITION OF WHOLE NUMBERS

- 1 Adding 4 four-digit numbers with regrouping
- 13 Recognizing addition and subtraction fact families; bridging 20 or 30 when adding
- 72 Learning about the Commutative Property of Addition
- 108 Learning about the Associative Property of Addition

SUBTRACTION OF WHOLE NUMBERS

- 1 Subtracting 2 three-digit numbers
- 2 Subtracting 2 three-digit numbers with regrouping
- 13 Recognizing addition and subtraction fact families
- 36 Subtracting four-digit numbers

Scope & Sequence of Lessons

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Lesson Concept

MULTIPLICATION OF WHOLE NUMBERS

Multiplication facts

- 12 Learning the multiplication facts with products up through 20 and products with 5 (up to 45), 10 (up to 90), 11 (up to 99) or 12 (up to 48) as a factor
- 24 Learning multiplication facts with products up to 30
- 24 Recognizing multiplication and division fact families
- 36 Learning multiplication facts with products up to 50
- 49 Learning multiplication facts with products up through 81
- 51 Recognizing multiples
- 73 Learning multiplication facts with products up through 81 and products less than 100 with 12 as a factor
- 91 Determining the lowest common multiple
- 91 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

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

Two-digit multiplier

- 32 Multiplying with a two-digit multiplier without a zero in the ones place in multiplier and without regrouping
- 47 Multiplying two two-digit numbers when there is a zero in the ones place in the multiplier, no regrouping
- 62 Multiplying two two-digit numbers, regrouping only with the ones or the tens place
- 84 Multiplying two two-digit numbers, regrouping twice
- 116 Multiplying three-digit number by two-digit number; multiplying money amounts with a two-digit multiplier
- 141 Computing products involving two decimal numbers
- 142 Computing products involving two decimal numbers

Three-digit multiplier

- 146 Multiplying a three-digit number times a three-digit number

Other

- 24 Learning the terminology for multiplication
- 72 Learning the Commutative Property of Multiplication
- 108 Learning the Distributive and Associative Properties of Multiplication

DIVISION OF WHOLE NUMBERS

Division facts, no remainders

- 21 Learning division facts with dividends up through 20 and dividends with 5 as a factor
- 24 Recognizing multiplication and division fact families
- 49 Learning division facts with dividends to 30 and dividends as multiples of 10 (to 90), 11 (to 99) or 12 (to 48)
- 73 Learning division facts with dividends up through 50
- 87 Learning division facts with dividends up to 81 and dividends less than 100 with 12 as a factor
- 93 Determining factors
- 94 Determining prime numbers and prime factors
- 106 Determining the greatest common factor
- 135 Determining if a number, greater than 20, is a prime number

Scope & Sequence of Lessons

by lesson number

Lesson Concept

Division facts, remainders

- 33 Learning division facts with remainders with dividends up through 20
- 70 Learning division facts with remainders with dividends up to 30 and dividends with 5 as a factor
- 91 Learning division facts with remainders with dividends to 50
- 111 Learning division facts with remainders with dividends to 81

One-digit divisor – two or more digit quotient

- 27 Dividing one-digit divisor into two-digit dividend with two-digit quotient, no regrouping or remainders
- 28 Dividing one-digit divisor into three-digit dividend with three-digit quotient, no regrouping or remainders
- 42 Dividing one-digit divisor into three-digit dividend with two-digit quotient, no regrouping or remainders
- 43 Dividing one-digit divisor into three-digit dividend with two-digit quotient, no regrouping or remainders
- 52 Dividing one-digit divisor into three-digit dividend, with two-digit quotient with regrouping and remainders
- 53 Dividing one-digit divisor into three-digit dividend, with two-digit quotient with regrouping and remainders
- 61 Dividing money by a one-digit divisor
- 82 Dividing one-digit divisor into four-digit dividend with three-digit quotient
- 83 Dividing one-digit divisor into four-digit dividend with three-digit quotient
- 115 Calculating a decimal answer in division problems when zeroes need to be added to the right of the dividend

Two-digit divisor

- 59 Dividing a two-digit divisor into a dividend less than 100, no remainders
- 89 Dividing with a two-digit divisor and a dividend less than 100 with remainders
- 138 Dividing a two-digit divisor into a three-digit dividend with a two-digit quotient
- 151 Dividing a two-digit divisor into a three-digit dividend with a one-digit quotient

Other

- 24 Learning the terminology for division
- 109 Dividing dollars by dollars

FRACTIONS

- 15 Recognizing the numerator and denominator
- 15 Determining fractional part of a group when modeled in words, with extraneous information/the word “not”
- 16 Learning that the whole is the sum of its parts
- 17 Computing half of a group
- 54 Computing $\frac{1}{2}$ to $\frac{1}{9}$ of a group
- 67 Adding and subtracting fractions
- 75 Determining equivalent fractions using models or money
- 76 Adding and subtracting fractions with like denominators
- 79 Comparing fractions
- 81 Adding and subtracting mixed numbers
- 88 Changing an improper fraction to a mixed number
- 95 Determining the improper fraction with the greatest or least value in a set of fractions
- 99 Calculating equivalent fractions using multiplication
- 110 Calculating equivalent fractions using division
- 112 Converting an improper fraction as part of a mixed number
- 114 Selecting the fraction that best represents a shaded region
- 118 Converting mixed numbers to decimal numbers by setting up equivalent fractions
- 125 Comparing fractions in less than and greater than problems and in true and not true number statements by setting up equivalent fractions
- 127 Converting fractions to percent by setting up equivalent fractions

Scope & Sequence of Lessons

by lesson number

Lesson Concept

- 128 Converting fractions to percent by setting up equivalent fractions
- 145 Arranging fractions, decimals, and mixed numbers on a number line
- 148 Converting fractions to decimals using division
- 153 Multiplying fractions
- 154 Multiplying fractions and whole numbers

MONEY

- 9 Learning the change equivalents up to a dollar for dimes, nickels and pennies
- 9 Recognizing coins
- 11 Recognizing the dollar symbol and decimal point
- 11 Recognizing money number words
- 11 Regrouping with money amounts when adding or subtracting
- 12 Multiplying money amounts by a one-digit multiplier
- 16 Learning the change equivalents up to \$1.00 for quarters and half-dollars
- 26 Solving word problems using mental multiplication of coins; calculating change using the fewest coins
- 55 Rounding to the nearest dollar
- 61 Dividing money by a one-digit number
- 109 Dividing dollars by dollars
- 116 Multiplying money amounts with a two-digit multiplier
- 139 Calculating cost per unit

DECIMALS

- 85 Recognizing tenths and hundredths places; recognizing decimal number words
- 86 Adding and subtracting decimals
- 100 Comparing decimal numbers in true and not true statements and in less than and greater than problems
- 105 Putting decimal numbers in order from least to greatest and greatest to least
- 107 Dividing decimal numbers by a whole number
- 115 Calculating a decimal answer in division problems when zeroes need to be added to the right of the dividend
- 117 Filling in a missing number in a sequence counting by decimal numbers
- 118 Converting mixed numbers to decimal numbers by setting up equivalent fractions
- 131 Recognizing the thousandth place
- 131 Rounding decimal numbers to the nearest tenth or hundredth
- 137 Selecting the decimal that represents a shaded region
- 141 Computing products involving two decimal numbers
- 145 Arranging fractions, decimals, and mixed numbers on a number line
- 148 Converting fractions to decimals using division

PERCENT

- 127 Converting fractions to percent by setting up equivalent fractions
- 128 Converting fractions to percent by setting up equivalent fractions
- 136 Selecting the percent that represents a shaded region
- 143 Solving word problems involving percent

TIME - CLOCK

- 18 Telling time to the minute
- 18 Recognizing a quarter past or to the hour or half past the hour
- 18 Calculating minutes before the hour
- 18 Learning 60 minutes = 1 hour
- 18 Calculating elapsed time
- 57 Calculating elapsed time (hours) involving AM and PM
- 90 Learning the equivalent for one year in days
- 111 Calculating elapsed time in minutes across the 12 on the clock

Scope & Sequence of Lessons

by lesson number

Lesson Concept

TIME - CALENDAR

- 19 Computing the date within one week
- 19 Learning 7 days = 1 week
- 19 Learning the abbreviations for days and months
- 66 Learning the equivalent for one year in weeks and the number of days in each month
- 124 Learning the equivalent for one year in days
- 124 Learning about leap year

ODD AND EVEN NUMBERS

- 17 Recognizing odd and even numbers less than 100
- 61 Recognizing sets of odd and even numbers
- 102 Recognizing three-digit odd and even numbers

WORD PROBLEMS

- 1 Solving multi-step word problems using addition and subtraction
- 4 Solving word problems using deductive reasoning
- 10 Determining if there is sufficient information to answer the question; determining what information is needed
- 26 Solving word problems using mental multiplication of coins
- 31 Solving word problems using multiplication and division
- 33 Solving word problems involving division with remainders
- 41 Solving word problems using reasoning
- 45 Estimating range for an answer using rounding to the nearest ten
- 45 Estimating answers for addition, subtraction and multiplication word problems; rounding to nearest 10
- 56 Calculating ratios of 2 to 1 and 3 to 1
- 69 Estimating answers for addition, subtraction and multiplication word problems; rounding to nearest 100 or 1000
- 69 Estimating range for an answer using rounding to the nearest hundred or thousand
- 72 Selecting the correct equation
- 77 Solving word problems by listing the possibilities
- 90 Estimating which answer is most reasonable; determining what the question is, given information & answer
- 92 Calculating distance, time and speed in word problems
- 96 Solving word problems involving area and perimeter
- 121 Reading maps drawn to scale
- 122 Calculating averages
- 129 Estimating answers to problems involving nine-digit numbers
- 139 Calculating unit cost
- 143 Solving word problems involving percent
- 150 Calculating the mean, mode and median

MEASUREMENTS

- 29 Estimating standard measurements
- 30 Reading measuring devices
- 37 Learning the equivalents for feet, inches and yards
- 63 Learning the equivalents for meters, kilometers, kilograms, dozen
- 63 Converting measurements using multiplication
- 63 Determining the measurement that is longer or shorter or heavier or lighter
- 64 Learning length abbreviations
- 73 Converting measurements using division
- 87 Learning the equivalents of gallons, pounds and tons
- 123 Learning the abbreviations for quarts, gallons, kilograms, grams, pounds and ounces

Scope & Sequence of Lessons

by lesson number

Lesson Concept

GEOMETRY

- 15 Recognizing squares, circles, triangles and rectangles
- 30 Recognizing lines of symmetry
- 37 Measuring line segments to the nearest half inch, quarter inch and half centimeter
- 38 Learning the terminology of parallel, intersecting and perpendicular lines
- 39 Learning the terminology of plane, figure, polygon, quadrilateral, parallelogram, and diagonal
- 40 Recognizing three-dimensional figures - sphere, cube, cone, cylinder, rectangular, square and triangular pyramids and rectangular prism
- 40 Learning the terminology of flat and curved faces, vertices and edges
- 58 Learning the terminology of pentagon, hexagon, octagon and pentagon
- 58 Recognizing patterns
- 58 Determining figures that do and do not belong in a set
- 60 Recognizing when figures are similar or congruent figures; recognizing flips, turns and slides
- 64 Calculating perimeters
- 65 Determining coordinate points
- 68 Calculating the area of a rectangle
- 70 Measuring angles
- 70 Learning the sum of the angles for a rectangle and a triangle
- 71 Recognizing the parts of a circle
- 78 Recognizing right, obtuse and acute angles
- 95 Calculating the volume of a rectangular prism with one or more layers of cubes
- 96 Solving word problems involving area and perimeter
- 96 Calculating the diameter, given the radius
- 97 Measuring vertical or horizontal lines by subtracting X or Y coordinates
- 98 Recognizing equilateral, isosceles and scalene triangles
- 101 Recognizing the pattern in a sequence of figures or pattern of shading
- 105 Calculating the volume of a rectangular prism using the formula $L \times W \times H$
- 120 Calculating area and perimeter given coordinates on a coordinate grid
- 130 Determining if coordinate points are on a given line
- 132 Associating the 360 degrees in a circle with one-quarter, one-half, three-quarter and full turns
- 140 Determining negative numbers using coordinate points
- 144 Learning the terminology of rhombus and trapezoid
- 147 Calculating the area of a parallelogram
- 149 Calculating the surface area of a rectangular prism
- 155 Calculating the area of a triangle

ESTIMATING

- 45 Rounding to the nearest ten
- 55 Rounding to the nearest hundred or thousand
- 55 Rounding to the nearest dollar
- 69 Estimating answers to word problems rounding to the nearest hundred or thousand
- 104 Rounding to the nearest whole number
- 129 Estimating answers to problems involving nine-digit numbers
- 131 Rounding decimal numbers to the nearest tenth or hundredth

PRE-ALGEBRA

- 8 Recognizing the symbols $<$ less than and $>$ greater than
- 14 Filling in a missing number in an equation; determining value of a letter that has been substituted for number
- 22 Selecting the correct operation
- 25 Completing patterns in a chart

Scope & Sequence of Lessons

by lesson number

Lesson Concept

- 34 Filling in missing numbers in equations with parentheses
- 34 Learning the order of operations when solving an equation
- 34 Filling in numbers where all numbers are represented by letters
- 35 Moving the numbers in a number sentences in order to change from \neq to $=$
- 35 Finding the value of an unknown by performing the same operation on both sides of an equation
- 44 Using Venn diagrams to understand the union and intersection of sets
- 72 Selecting the correct equation
- 74 Recognizing true and not true equations
- 74 Selecting the correct symbol for a number sentence
- 87 Using trial and error to replace letters with numbers in an equation
- 133 Comparing positive and negative numbers
- 134 Determining the equation that represents a problem and the one that solves the problem
- 152 Determining the rule that creates a pattern

PROBABILITY

- 5 Calculating probability

GRAPHS

- 5 Interpreting pie graphs
- 20 Interpreting bar graphs and picture graphs
- 80 Interpreting information in a line graph
- 119 Comparing two or more sets of data using bar or line graphs

Scope & Sequence of Stretches

by lesson and concept

Stretch Concept

NUMBER SENSE ON A GRID

- 17 arrange numbers 0-8 so consecutive numbers don't touch
- 63 arrange numbers 0-9 so consecutive numbers don't touch
- 68 arrange numbers 0-9 so consecutive numbers don't touch; different shape

NUMBER SENSE ARABIC & ROMAN NUMERALS

- 003 add 1 digit #s to 23 without using a 1, 5 or 8
- 026 write 24-17 without using a 2, 4, 1 or 7

- 109 move a line for true equation; addition
- 128 move a line to make a true equation; add, subtr
- 143 move a line to make a true equation

WHAT NUMBER (TWO, THREE, etc.)

- 013 what one number is midway between 54 and 92
- 129 what one number used 3 times with any operators = 30
- 132 what 2-digit number is 3x sum of digits
- 142 what 2-digit number is 5x sum of digits

- 008 which 3 consecutive numbers total 141
- 090 which 3 consecutive odd numbers total 51
- 105 which 3 consecutive even numbers total 168

- 021 which 4 consecutive numbers total 106
- 113 which 4 consecutive numbers total 190
- 122 which 4 consecutive odd numbers total 240

PUT IN ORDER

- 001 4 kids arrive at school; what is the order of arrival
- 002 4 people; what is order of height from short to tall
- 054 4 kids arrive at school; what is the order of arrival; different clues
- 057 4 dogs in show; what is the order of finishing awards
- 061 4 houses on a street of different colors; what is their order
- 072 4 people; what are their ages and order from young to old

WHICH ONE IS (NEXT IN SEQUENCE, HEAVIEST, LARGEST)

- 049 pound of feathers & pound of nails; which is heaviest
- 060 what is the next figure drawn in sequence
- 077 Score on Rob's 10th spelling test = 99
- 130 How far did Ralph run in each of 5 months
- 136 How many insects did bird eat in 4 days
- 138 How far did Ralph jog in each of 6 months

ADDITION ON A GRID

- 007 arrange numbers 0-9 so sums are all 14
- 011 arrange numbers 0-9 so sums are all 18
- 106 arrange 4 each of digits 1,2,3,4 so sums are 10

Scope & Sequence of Stretches

by lesson and concept

Stretch Concept

USE DIGITS AND OPERATORS TO CREATE SPECIFIED ANSWERS

- 006 use 1-9 once each to create 3 addition problems with equal sums
- 025 use 1-8 once each to make 4 equal sums
- 067 use 0-9 once each to fill blanks for equation
- 092 use 1-9 once each to create 3 addition problems with consecutive sums
- 096 use 0-9 once each to fill blanks for equation
- 102 use 1-9 once each to create 3 subtraction problems with equal remainders
- 126 keep 1-10 in order, use operators to make total equal 100

PRE-ALGEBRA (WHICH LETTER IS WHICH DIGIT 0-9)

- 069 3 problems (add, subtract, divide) using diamond, square, star, circle, hexagon to represent numbers

- 009 $KA+B=KC$ and $C-A=B$
- 015 $ACxB=AC$ and $AB+C=AB$ and $A-B=B$
- 019 $M+N=KB$ and $MxN=TN$ and $M-N=B$
- 031 $AB/C=D$ & $(A+A)x C=D$ & $C-(A+A)=A$ Parenthesis introduced
- 039 $P + P = QR$ & $QR \div R = P$
- 045 $CxC=C$ & $DxA=B$ & $D+A=H$ & $ExF=F$ & $K+G=CD$
- 052 $MN-P=MP$ and $N+P=MV$
- 056 $MxN=P$ and $RM-N=RR$ and $P+P=RN$
- 075 $A+A+A=BC$ and $BC-A=DE$ and $A/C=B$
- 080 $A+A+A+A=CF$ and $C+F=A$ and $CxC=A$
- 089 $AxC=BC$ and $C/E=B$ and $C-E=A$
- 093 $AxBC=AD$ and $AxC=D$ and $C-B=B$
- 099 $EW/X=B$ and $W/E=A$ and $W+E=X$
- 104 $BC/D=E$ & $(BxE)x B=BC$ and $C/B=G$
- 109 $AB/C=D$ and $ExF=CB$ and $BxC=GA$
- 114 $50.00 - ((4 \times B) + (3 \times P) + T) =$ Change from a purchase
- 147 $58 - X + 8 = 43$; $(58+8)-43=X$; $23 = X$

PRE-ALGEBRA (BALANCING BOTH SIDES OF AN EQUATION)

- 023 5 quart & 3 quart bottles; need 2 quarts
- 076 3 box / 2 box; balance 1-digit numbers
- 087 3 box / 2 box; balance 2-digit numbers
- 095 3 box / 3 box; balance 2-digit numbers
- 133 3 crossing stream; how do they do it using 1 raft that holds only 2
- 134 3 boxes & balance scale; find heaviest in 1 weighing
- 139 5 boxes & balance scale; find heaviest in 2 weighings
- 144 9 boxes & balance scale; find heaviest in 2 weighings
- 149 9 boxes & balance scale; find heaviest in 3 weighings
- 154 15 boxes & balance scale; find heaviest in 3 weighings

PRE-ALGEBRA (GIVEN A TOTAL & CERTAIN DETAILS, HOW MANY DOES EACH HAVE)

- 005 $A+J=12$; $J+6=A$; how many dogs
- 014 $K+B+L=42$; $K/2=B$; $K*2=L$; how many cats
- 022 $H+C+S=18$; $H+2=S$; $H*2=C$; how many hits
- 027 $T+Y+B+A=34$; $B*3=Y$; $B/2=A$; $Y+B=T$ how many trees
- 029 $Jo+J+G+B=32$; $G+1=J$; $J*3=B$; $C*2=Jo$ how many cards
- 033 $P+M+C=25$; $C+1=M$; $P-5=M$; how many fish

Scope & Sequence of Stretches

by lesson and concept

Stretch Concept

- 038 how many more than less than marbles
041 $T+R+C=30$; $T*5=R$; $C/4=T$; how many birds
047 $A+B+C=20$; $A-2=B$; $C-3=B$; how many coins
055 $A+B+C=27$; $A/2=B$; how many books
086 $Br+P+B=33$; $Pu=Bu*3$; $Bu=5$; $Bu+Bf=8$; $Brf/2=Bf$ how many stamps of each kind

PRE-ALGEBRA (GIVEN TOTAL PRICE, UNIT PRICE & TOTAL ITEMS, HOW MANY EACH)

- 091 Total cost .31; how many each .02, .03 & .04 if total number is 10
103 Total cost .87; how many each .04, .05 .06 & .08 if total number is 16
111 Total cost 1.40; how many each .06, .07, .08 & .09 if total number is 18

PRE-ALGEBRA (GIVEN TOTALS, HOW MANY EACH OF TWO ITEMS)

- 071 24 legs; 7 heads - how many each of men & cows
079 57 legs; 16 stools - how many each of 3 & 4 legged stools

PRE-ALGEBRA (GIVEN NUMBER AND INTERVAL, HOW MANY WILL THERE BE)

- 012 8, then 10, then 12 etc how many in 10 yrs
016 2, then 4, then 8 etc when will total be 500
035 15 then 25 then 35 etc how many after 6 mo
048 7 in room each shaking hands; how many: 21
059 24 $-1/2$; then $-1/3$, then $-1/4$ etc how many; 1
062 7 in a row, then 10 then 13 etc how many in the 10th row: 34
070 3 bird 3 worm 3 min; how long will it take 33 birds to eat worms
116 104 in 4 day; each day 10 more than prev day
124 2, then 4, then 8 etc when will total be 1000
153 trillion pennies; spend a million a day, how long to spend them all

HOW MUCH (CONTENTS VS CONTAINER)

- 083 Total .80; bottle is .60 more than cider; how much is cider
101 Total .90; milk is .50 more than bottle; how much is milk

PRE-ALGEBRA (TRIAL & ERROR WITH DIVISION)

- 115 How many brownies $N < 72$; $N/5$ gives $r3$, $N/4$ $r3$. $N/3$ $r3$, $N/2$ $r1$
117 How many yards; $N/8$ no r ; $N/7$ $r2$; $N/6$ no r ; $N/5$ no r ; $N/4$ no r ; $N/3$ no r ; $N/2$ no r
121 How many stamps $N < 72$; $N/5$ gives $r4$; $N/4$ gives $r3$; $N/3$ gives $r2$; $N/2$ gives $r1$
155 Age of kids $A \times B \times C = 36$; $A + B + C = H$; $A = B$

DEDUCTIVE REASONING (BASED ON EVIDENCE, IS A STATEMENT TRUE)

- 040 Two statements; based on what you are told, is the third statement T, F or DNK? F
051 Two statements; based on what you are told, is the third statement T, F or DNK? T
064 Two statements; based on what you are told, is the third statement T, F or DNK? F
073 Two statements; based on what you are told, is the third statement T, F or DNK? T
084 Two statements; based on what you are told, is the third statement T, F or DNK? F
098 Three statements; based on what you are told, is the fourth statement T, F or DNK? T
108 Three statements; based on what you are told, is the fourth statement T, F or DNK? F
120 Three statements; based on what you are told, is the fourth statement T, F or DNK? F
127 Three statements; based on what you are told, is the fourth statement T, F or DNK? T

Scope & Sequence of Stretches

by lesson and concept

Stretch Concept

DEDUCTIVE REASONING (MATCH PEOPLE WITH DESCRIPTION)

- 034 4 athletes with playing position; match names to positions
- 037 4 relatives; match first and last names
- 042 4 employees; match names with jobs
- 046 4 toys on floor; match toys with owners
- 050 4 students; match names with subjects
- 074 4 kids with drinks; match drinks to kids
- 081 4 girls with sports; match girls to sports
- 088 4 kids with dogs; match dogs with owners
- 097 4 kids with pets; match pets using chart
- 112 4 teams, 8 people; find teams using chart

VENN DIAGRAMS AND SETS

- 145 Of 21 students, 5 have no siblings, 2 have sister, 4 have brother; how many have both
- 151 Of 26 students, 4 have none, 13 boys, 16 girls; how many have both

TIME - DATE & CALENDAR

- 010 Birthday on 95th day of the year; what is the date
- 018 Birthday on 153rd day of the year; what is the date
- 043 Birthday on 200th day of the year; what is the date

TIME - EVENTS IN A DAY

- 148 8 class periods, lunch & breaks; what time will it be when school's out

MONEY

- 020 What is value of your city, given 1 cent for A, 2 cents for B, etc.
- 028 Create words that equal 25 cents or less, given 1 cent for A, 2 cents for B, etc.
- 030 What 24 coins add exactly to \$1.00
- 146 How many coins can you have and still not be able to change 1.00 bill

GEOMETRY

- 004 Move 1 line to make 3 squares from 4 squares
- 044 Move 3 lines to make 3 squares from 5 squares
- 058 Move 4 lines to make 6 triangles from 8 triangles
- 066 Move 3 lines to make 2 rectangles from 4 squares
- 078 Move 3 lines to make 3 squares from 4 squares
- 082 Move 2 lines to make 7 squares from 4 squares
- 100 Move 2 lines to make 2 squares from 4 squares
- 107 Move 5 lines to make 3 squares from 6 squares
- 123 Move 8 lines to make 3 squares from 9 squares

- 131 Using 10 lines, make 5 triangles

- 036 Given 6 circles arranged in triangle; invert shape by moving 2
- 053 Given 10 circles arranged in triangle; invert shape by moving 3
- 032 Given a complex drawing, how many shapes: 13 triangles
- 065 Given a complex drawing, how many shapes: 30 squares
- 094 Given a complex drawing, how many shapes: 27 triangles
- 110 Given a different complex drawing, how many shapes: 27 triangles

Scope & Sequence of Stretches

by lesson and concept

Stretch Concept

- 119 Given a complex drawing, how many shapes: 51 rectangles
- 024 How many ways can 3 squares be connected
- 118 How many pieces of carpet are needed to make 12 sq yds of carpet
- 125 How many bags cement are needed to make a sidewalk=650
- 135 What are the dimensions of rectangle perimeter fence
- 137 What is the area of the unshaded region
- 150 What is area of square w/144 cm perimeter
- 140 which of 3 cubes on the right is the same as the left cube
- 141 which letter on the back of a cube is opposite the visible letter on the cube

COMBINATIONS

- 085 alphabet soup; which 4-letter combinations are possible
- 152 change word from side to dish, each time changing one character

CHARTING/GRAPHING

- 086 using chart to find out how many stamps of each kind
- 097 4 kids with pets; match pets using chart
- 112 4 teams, 8 people; find teams using chart

PATTERNS

- 012 8, then 10, then 12 etc how many in 10 yrs
- 016 2, then 4, then 8 etc when will total be 500
- 035 15 then 25 then 35 etc how many after 6 mo
- 060 what is the next figure drawn in sequence
- 077 Score on Rob's 10th spelling test = 99
- 116 104 in 4 day; each day 10 more than prev day
- 124 2, then 4, then 8 etc when will total be 1000
- 130 How far did Ralph run in each of 5 months
- 136 How many insects did bird eat in 4 days
- 138 How far did Ralph jog in each of 6 months

Scope & Sequence of Activities

by activity number and page

#	Pg	Activity Concept
1	A4	Recording and interpreting probability data using graphs
2	A6	Interpreting data plotted on bar and line graphs
3	A8	Plotting data points on a grid
4	A10	Extracting and interpreting the information displayed on line graphs
5	A12	Collecting data and creating pie graphs to display the data
6	A14	Observation and Experimentation: proving a hypothesis
7	A16	Reasoning by listing possibilities
8	A18	Reasoning by asking questions
9	A20	Math in advertising
10	A22	Creating word problems to fit equations
11	A24	Arranging complex plane figures on a grid
12	A28	Perimeter and area of squares and rectangles
13	A30	Perimeter and area of triangles
14	A32	Using number lines to represent sets of real and whole numbers

Create A Problem (Back of Tests)

by test, with page number, title and lesson concept

Test	Page	Concepts
Test 01	12	Word Problems - observation & interpretation - The Walking Club
Test 02	24	Word Problems - observation & interpretation - Getting to Know Each Other
Test 03	36	Word Problems - observation and interpretation - Planning a Family Reunion Picnic
Test 04	48	Word Problems - observation and interpretation - Day of the Family Reunion Picnic
Test 05	60	Word Problems - observation and interpretation - Planning a Walk-A-Thon
Test 06	72	Word Problems - observation and interpretation - The Walk and Roll-A-Thon
Test 07	96	Word Problems - observation and interpretation - Filed Trip to the Zoo
Test 08	108	Word Problems - observation & interpretation - The Speed of Animals
Test 09	120	Word Problems - observation & interpretation - The Spiny-Tailed Iguana
Test 10	132	Word Problems - observation & interpretation - Dolphins
Test 11	144	Word Problems - observation & interpretation - Dangerous Sharks
Test 12	156	Word Problems - observation & interpretation - Harmless Sharks
Test 13	180	Create multiplication/division problems - Bones in Our Body
Test 14	192	Create multiplication/division problems - Giraffes
Test 15	204	Create multiplication/division problems - La Brea Tar Pit Skeletons
Test 16	216	Create length/distance problems - Whales
Test 17	228	Graphing - creating and interpreting line graph - Bicycle Racing
Test 18	240	Graphing - creating and interpreting line graph - Tour de Vacation
Test 19	264	Word and Money Problems - finish the story - Super Plumber
Test 20	276	Word and Time Problems - finish the story - Preparing the Baseball Diamond
Test 21	288	Word and Money Problems - finish the story - A Day of Roller Skating
Test 22	300	Time and Money Problems - finish the story - The Tree House
Test 23	312	Time and Money Problems - finish the story - A Day at the County Fair
Test 24	324	Time and Age Problems - finish the story - Dance Class