



California 4th Grade Standards /
Excel Math Correlation by Lesson Number

Lesson (Activity) Number	Excel Math Lesson Objective	California Standard / Objective
L1	Recognizing the thousands, hundreds, tens and ones places; solving multi-step story problems using addition and subtraction; adding 4 four-digit numbers with regrouping and subtracting two three-digit numbers	Number Sense: 1.1, 3.1 Mathematical Reasoning: 2.3, 2.4, 2.5, 2.6
L2	Subtracting two three-digit numbers with regrouping	Number Sense: 3.1
L3	Recognizing any number less than 1,000	Number Sense: 1.1
L4	Solving word problems using deductive reasoning	Mathematical Reasoning: 1.1, 1.2
L5	Calculating probability, interpreting pie graphs	Statistics, Data Analysis, Probability: 1.3, 2.1, 2.2
L6	Filling in missing numbers in sequences counting by 1, 2, 3, 4, 5, or 10	Number Sense: 1.2 Mathematical Reasoning: 1.1
L7	Recognizing any number less than 10,000	Number Sense: 1.1
L8	Recognizing the symbols and terms < less than, > greater than; arranging 4 four-digit numbers in order from least to greatest and from greatest to least	Number Sense: 1.2 Algebra / Functions: 1.1
L9	Learning change equivalents up to \$1.00 for dimes, nickels and pennies; recognizing coins	Number Sense: 1.2, 3.1 Mathematical Reasoning: 1.1
L10	Determining if there is sufficient information to answer the question; determining what information is needed to answer a question	Mathematical Reasoning: 1.1
L11	Recognizing the dollar symbol and decimal point; recognizing money number words; regrouping with money amounts when adding or subtracting	Number Sense: 1.2, 2.1, 3.1
L12	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; multiplying a one-digit times a two or three-digit number; multiplying money amounts	Number Sense: 2.1, 3.1, 3.2, 4.1
L13	Recognizing addition and subtraction fact families; bridging 20 or 30 when adding	Number Sense: 3.1, 4.1
L14	Filling in a missing number in an equation; determining the value of a letter that has been substituted for a number	Algebra / Functions: 1.1, 1.5



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L15	Recognizing squares, circles, triangles and rectangles; recognizing the numerator and denominator; determining the fractional part of a group of items when modeled or given in words, sometimes including extraneous information or the word “not”	Number Sense: 1.5, 1.7 Measurement / Geometry: 3.1, 3.7
L16	Learning that the whole is the sum of its parts; learning change equivalents up to \$1.00 for quarters and half-dollars	Number Sense: 1.5, 1.7, 4.1
L17	Computing half of a group; recognizing odd and even numbers less than 100	Number Sense: 1.5 Mathematical Reasoning: 1.1, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3
L18	Telling time to the minute; recognizing a quarter past or to the hour, half past the hour; calculating minutes before the hour; learning 60 minutes = 1 hour; calculating elapsed time	Number Sense: 2.1, 3.1 Mathematical Reasoning: 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3
L19	Computing the date within one week; learning 7 days = 1 week; learning the abbreviations for days and months	Mathematical Reasoning: 1.1, 2.3, 2.4, 2.5, 2.6
L20	Interpreting bar graphs and picture graphs	Statistics, Data Analysis, Probability: 1.1, 1.3
L21	Learning division facts with dividends up through 20 and dividends with 5 as a factor	Number Sense: 3.2 Mathematical Reasoning: 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3
L22	Selecting the correct operation; recognizing numbers greater than 1,000	Number Sense: 1.1, 1.2, 3.2, 3.4 Algebra / Functions: 1.1
L23	Filling in missing numbers in sequences counting by 6, 7, 8, or 9	Number Sense: 1.1, 3.4 Mathematical Reasoning: 1.1
L24	Learning multiplication facts with products up to 30; recognizing multiplication and division fact families; learning the terminology for multiplication and division	Number Sense: 3.2, 3.4, 4.2
L25	Completing patterns in a chart	Statistics, Data Analysis, Probability: 1.3 Mathematical Reasoning: 1.1, 2.3, 2.4, 2.5, 2.6
L26	Solving word problems using mental multiplication of coins; calculating change using the least number of coins	Number Sense: 1.2, 2.1, 3.1 Mathematical Reasoning: 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3
L27	Dividing a one-digit divisor into a two-digit dividend with a two-digit quotient, no regrouping or remainders	Number Sense: 3.2, 3.4 Mathematical Reasoning: 2.3, 2.4, 2.5, 2.6



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L28	Dividing a one-digit divisor into a three-digit dividend with a three digit quotient, no regrouping or remainders	Number Sense: 3.2, 3.4 Mathematical Reasoning: 2.3, 2.4, 2.5, 2.6
L29	Estimating standard measurements	Number Sense: 3.4 Measurement / Geometry: 1.1
L30	Recognizing lines of symmetry; reading measuring devices	Measurement / Geometry: 3.4
L31	Solving word problems involving multiplication and division	Number Sense: 3.2, 3.4 Mathematical Reasoning: 1.1, 1.2
L32	Multiplying with a two-digit multiplier without a zero in the ones place in the multiplier and without regrouping	Number Sense: 3.2, 3.3
L33	Learning division facts with remainders with dividends up through 20; solving word problems involving division with remainders	Number Sense: 3.2, 3.4 Mathematical Reasoning: 1.1, 1.2
L34	Filling in missing numbers in equations with parentheses; learning the order of operations when solving an equation; replacing letters with numbers in an equation	Number Sense: 3.4, 4.1 Algebra / Functions: 1.1, 1.2, 1.3, 1.5
L35	Changing a number sentence from \neq to $=$; finding the value of an unknown by performing the same operation on both sides of an equation	Algebra / Functions: 1.1
L36	Subtracting four-digit numbers; learning multiplication facts with products to 50	Number Sense: 3.1, 3.2, 3.4
L37	Measuring line segments to the nearest half inch, quarter inch and half centimeter; learning the equivalents for feet, inches and yards	Measurement / Geometry: *2.2
L38	Learning the terminology of parallel, intersecting and perpendicular	Measurement / Geometry: 3.1
L39	Learning the terminology of plane figure, polygon, quadrilateral, parallelogram, and diagonal	Measurement / Geometry: 3.8 Statistics, Data Analysis, Probability: 1.3
L40	Recognizing three-dimensional figures - sphere, cube, cone, cylinder, rectangular, square and triangular pyramid and rectangular prism; learning the terminology of flat and curved faces, vertices and edges	Measurement / Geometry: 3.6



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L41	Solving word problems using reasoning	Mathematical Reasoning: 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6
L42	Dividing a one-digit divisor into a three-digit dividend with a two-digit quotient, no regrouping or remainders	Number Sense: 3.2, 3.4 Mathematical Reasoning: 2.3, 2.4, 2.5, 2.6
L43	Continued - Dividing a one-digit divisor into a three-digit dividend with a two-digit quotient, no regrouping or remainders	Number Sense: 3.2, 3.4 Mathematical Reasoning: 2.3, 2.4, 2.5, 2.6
L44	Using Venn Diagrams to understand the union and intersection of sets	Mathematical Reasoning: 1.1, 1.2, 2.3, 2.4, 2.5
L45	Rounding to the nearest ten; estimating range for an answer; estimating the answers for addition, subtraction and multiplication word problems using rounding	Number Sense: Number Sense: 1.3, 1.4
L46	Recognizing ordinal number words up to 100	Number Sense: 1.1, 1.2, 3.4 Mathematical Reasoning: 1.1
L47	Multiplying two two-digit numbers when there is a zero in the ones place in the multiplier, no regrouping	Number Sense: 3.2, 3.3, 3.4
L48	Filling in missing numbers in sequences involving three-digit numbers	Number Sense: 1.2, 3.2, 3.4 Mathematical Reasoning: 1.1
L49	Learning multiplication facts with products to 81; learning division facts with dividends to 30 and dividends that are multiples of 10 (to 90), 11 (to 99) or 12 (to 48)	Number Sense: 3.2, 3.4
L50	Recognizing numbers less than a million given in words, expanded notation or place value	Number Sense: 1.1
L51	Recognizing multiples	Number Sense: 3.2 Statistics, Data Analysis, Probability: 2.1, 2.2 Mathematical Reasoning: 1.1, 1.2,
L52	Dividing a one-digit divisor into a three-digit dividend with a two-digit quotient, with regrouping and remainders	Number Sense: 3.2, 3.4 Mathematical Reasoning: 2.3
L53	Continuing to divide a one-digit divisor into a three-digit dividend with a two-digit quotient, with regrouping and remainders	Number Sense: 3.2, 3.4 Mathematical Reasoning: 2.3
L54	Computing $\frac{1}{2}$ to $\frac{1}{9}$ of a group	Number Sense: 1.5
L55	Rounding to the nearest hundred or thousand; using rounding in order to estimate; rounding to the nearest dollar	Number Sense: 1.2, 1.3, 1.4



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L56	Calculating ratios of 2 to 1 and 3 to 1	Statistics, Data Analysis, Probability: 1.1, 1.3 Mathematical Reasoning: 1.1, 1.2, 2.3, 2.4, 2.6, 3.1, 3.2, 3.3
L57	Calculating elapsed time (hours) involving AM and PM	Mathematical Reasoning: 1.1, 1.2,
L58	Recognizing patterns; learning the terminology of pentagon, hexagon, and octagon; determining figures that do or do not belong in a set	Measurement / Geometry: 3.8 Mathematical Reasoning: 1.1
L59	Dividing a two-digit divisor into a dividend less than 100, no remainders	Number Sense: 3.1, 3.2, 3.4 Mathematical Reasoning: 2.3
L60	Recognizing when figures are similar or congruent; recognizing flips, turns and slides	Measurement / Geometry: 3.3
L61	Recognizing sets of odd and even numbers; dividing money by a one-digit divisor	Number Sense: 1.2, 3.2, 3.4 Mathematical Reasoning: 1.1
L62	Multiplying two two-digit numbers, regrouping only with the ones or the tens place	Number Sense: 3.2, 3.3, 3.4
L63	Learning measurement equivalents for meters, kilometers, kilograms, dozen; converting 2 feet 3 inches to 27 inches; determining the measurement that is longer or shorter or heavier or lighter	Measurement / Geometry: 1.1
L64	Calculating perimeters; learning length abbreviations	Measurement / Geometry: 1.4
L65	Determining coordinate points	Measurement / Geometry: 2.1, 2.2, 2.3
L66	Learning the equivalent for one year in weeks and the number of days in each month	Number Sense: 3.4
L67	Adding and subtracting fractions	Number Sense: 1.5, 1.7
L68	Calculating the area of a rectangle	Algebra / Functions: 1.4 Measurement / Geometry: 1.1, 1.4
L69	Estimating answers to word problems rounding to the nearest hundred or thousand; using rounding to establish a range	Number Sense: 1.3, 1.4, 3.1



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L70	Learning division facts with remainders with dividends up to 30 and dividends with 5 as a factor; measuring angles; learning the sum of the angles for a rectangle and a triangle	Number Sense: 3.4 Measurement / Geometry: 3.1, 3.5
L71	Recognizing the parts of a circle	Number Sense: 3.4 Measurement / Geometry: 3.2
L72	Selecting the correct equation; learning about the Commutative Property of Addition and of Multiplication	Number Sense: 3.2, 4.1 Algebra / Functions: 1.1 Mathematical Reasoning: 1.1, 1.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3
L73	Learning division facts with dividends up through 50; learning multiplication facts with products up through 81 and products less than 100 with 12 as a factor; converting measurements using division	Number Sense: 3.2, 3.4, 4.1
L74	Recognizing true and not true number sentences; selecting the correct symbol for a number sentence	Number Sense: 1.2, 3.4, 4.1 Algebra / Functions: 1.1
L75	Determining equivalent fractions using models or money	Number Sense: 1.5, 1.7
L76	Adding and subtracting fractions with like denominators	Number Sense: 1.5, 1.7, 3.4
L77	Solving word problems by listing possibilities	Number Sense: 3.4 Algebra / Functions: 1.2, 1.3 Statistics, Data Analysis, Probability: 2.1, 2.2
L78	Recognizing right, obtuse and acute angles	Number Sense: 3.4 Measurement / Geometry: 3.5
L79	Comparing fractions	Number Sense: 1.5, 3.4
L80	Interpreting information given in a line graph	Statistics, Data Analysis, Probability: 1.3
L81	Adding and subtracting mixed numbers	Number Sense: 1.5, 3.4
L82	Dividing a one-digit divisor into a four-digit dividend with a three-digit quotient	Number Sense: 3.2, 3.4
L83	Continued - Dividing a one-digit divisor into a four-digit dividend with a three-digit quotient	Number Sense: 3.2, 3.4
L84	Multiplying two two-digit numbers, regrouping twice	Number Sense: 3.2, 3.3, 3.4
L85	Recognizing tenths and hundredths places; recognizing decimal number words	Number Sense: 1.1, 1.6



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L86	Adding and subtracting decimal numbers	Number Sense: 2.1
L87	Learning division facts with dividends up to 81 and dividends less than 100 with 12 as a factor; using trial and error to replace letters with numbers in an equation; learning the equivalents of gallons, pounds, tons	Number Sense: 1.2, 2.1 Measurement / Geometry: 1.1
L88	Changing an improper fraction to a mixed number	Number Sense: 1.5, 1.7
L89	Dividing with a two-digit divisor and a dividend less than 100 with remainders	Number Sense: 3.2, 3.4
L90	Determining the question, given the information and the answer; learning the equivalent for one year in days; estimating which answer is most reasonable	Mathematical Reasoning: 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3
L91	Determining the lowest common multiple; learning the multiplication facts with products with 11 (up to 121) and 12 (up to 144) as a factor; learning division facts with remainders with dividends to 50	Number Sense: 3.2, 3.3, 3.4, 4.1
L92	Calculating distance, time and speed in word problems	Number Sense: 3.4, 1.4
L93	Determining factors	Number Sense: 3.2, 3.4
L94	Determining prime numbers and prime factors	Number Sense: 4.1, 4.2
L95	Calculating the volume of a rectangular prism with one or more layers of cubes; determining the improper fraction with the greatest or least value in a set of fractions	Number Sense: 1.5 Measurement / Geometry: 1.1, 1.4, 3.6
L96	Solving word problems involving area and perimeter; calculating the diameter, given the radius	Number Sense: 3.4 Measurement / Geometry: 1.1, 1.4, 3.1, 3.7, 3.8
L97	Measuring vertical or horizontal lines by subtracting x or y-coordinates	Measurement / Geometry: *2.1, 2.2, 2.3
L98	Recognizing equilateral, isosceles and scalene triangles	Number Sense: 3.4, 3.7
L99	Calculating equivalent fractions using multiplication	Number Sense: 1.5, 1.7
L100	Comparing decimal numbers in true and not true statements and in less than and greater than problems	Number Sense: 1.6
L101	Recognizing the pattern in a sequence of figures or pattern of shading	Mathematical Reasoning: 1.1, 1.2, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3



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L102	Recognizing numbers up through trillions; recognizing three-digit odd and even numbers	Number Sense: 1.2, 3.2, 3.4
L103	Filling in missing numbers in sequences counting by 11 or 12	Number Sense: 1.2, 3.2, 3.4 Mathematical Reasoning: 1.1, 1.2
L104	Rounding to the nearest whole number	Number Sense: 1.4, 2.1, 2.2
L105	Calculating the volume of a rectangular prism using the formula $L \times W \times H$; putting decimal numbers in order from least to greatest and greatest to least	Algebra / Functions: 1.4 Measurement / Geometry: 1.1, 1.4
L106	Determining the greatest common factor	Number Sense: 1.2, 3.2, 4.1
L107	Dividing decimal numbers by a whole number	Number Sense: 3.2, 3.4
L108	Learning the Distributive Property of Multiplication and the Associative Property of Multiplication and Addition	Number Sense: 3.1, 3.4, 4.1 Algebra / Functions: 1.2, 1.3
L109	Dividing dollars by dollars	Number Sense: 3.2, 3.4 Mathematical Reasoning: 1.1, 2.3, 2.4, 2.5, 3.1, 3.2, 3.3
L110	Calculating equivalent fractions using division	Number Sense: 1.5, 1.7
L111	Calculating elapsed time in minutes across the 12 on a clock	Number Sense: 3.1 Mathematical Reasoning: 1.1, 1.2
L112	Converting improper fractions as part of mixed numbers	Number Sense: 1.5, 1.7, 3.4
L113	Filling in missing numbers in sequences counting by varying amounts	Mathematical Reasoning: 1.1, 1.2, 2.3, 2.4
L114	Selecting the fraction that best represents a shaded region	Number Sense: 1.5, 1.7, 3.4
L115	Calculating a decimal answer in division problems when zeroes need to be added to the right of the dividend	Number Sense: 3.2, 3.4
L116	Multiplying a three-digit number by a two-digit number; multiplying money amounts with a two-digit multiplier	Number Sense: 3.23.33.4
L117	Filling in missing numbers in a sequence of decimal numbers	Number Sense: 1.2, 3.4 Mathematical Reasoning: 1.1
L118	Converting mixed numbers to decimal numbers by setting up equivalent fractions	Number Sense: 1.5 Algebra / Functions: 2.2
L119	Comparing two or more sets of data using bar or line graphs	Statistics, Data Analysis, Probability: 1.3



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L120	Calculating area and perimeter given coordinates on a coordinate grid	Measurement / Geometry: 1.1, 1.4
L121	Reading maps drawn to scale	Mathematical Reasoning: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3
L122	Calculating averages	Number Sense: 3.4 Measurement / Geometry: 1.2
L123	Learning the abbreviations for quarts, gallons, kilograms, grams, pounds and ounces; continued - Calculating averages	Measurement / Geometry: 3.6 Statistics, Data Analysis, Probability: 1.2 Mathematical Reasoning: 1.2
L124	Learning the equivalent for one year in days; learning about leap year	Number Sense: 3.2, 3.4 Mathematical Reasoning: 1.1, 1.2
L125	Comparing fractions in less than and greater than problems and in true and not true number sentences by setting up equivalent fractions	Number Sense: 1.5
L126	Recognizing Roman Numerals I, V, X, L, C, D, M	Number Sense: 1.1
L127	Converting fractions to percent by setting up equivalent fractions	Number Sense: 1.5, 1.6 Algebra / Functions: 2.2
L128	Continued - Converting fractions to percent by setting up equivalent fractions	Number Sense: 1.5, 1.6 Algebra / Functions: 2.2
L129	Estimating answers to problems involving nine-digit numbers	Number Sense: 1.1, 1.3, 1.4, 3.4 Mathematical Reasoning: 2.5
L130	Determining if coordinate points are on a given line	Measurement / Geometry: 2.1
L131	Recognizing the thousandth place; rounding decimal numbers to the nearest tenth or hundredth	Number Sense: 1.1, 1.2, 2.2, 3.2, 3.3
L132	Associating the 360 degrees in a circle with one-quarter, one-half, three-quarter and full turns	Measurement / Geometry: 3.5
L133	Comparing positive and negative numbers	Number Sense: 1.2, 1.9
L134	Determining the equation that represents a problem and the one that solves the problem	Algebra / Functions: 1.5
L135	Determining if a number, greater than 20, is a prime number	Number Sense: 4.2
L136	Selecting the percent that represents a shaded region	Number Sense: 1.6, 1.7, 3.4
L137	Selecting the decimal that represents a shaded region	Number Sense: 1.6, 1.7, 3.2, 3.3, 3.4

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L138	Dividing a two-digit divisor into a three-digit dividend with a two-digit quotient	Number Sense: 3.2
L139	Calculating cost per unit	Mathematical Reasoning: 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3
L140	Determining negative numbers using coordinate points	Number Sense: 1.8 Measurement / Geometry: *2.1, 2.2, 2.3
L141	Computing products involving two decimal numbers	Number Sense: 1.2, 1.6, 2.1, 3.2, 3.3, 3.4
L142	Continued - Computing products involving two decimal numbers	Number Sense: 1.6, 2.1, 3.2, 3.3, 3.4
L143	Solving word problems involving percent	Number Sense: 1.5, 1.6 Mathematical Reasoning: 1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3
L144	Learning the terminology of rhombus and trapezoid	Measurement / Geometry: 3.8
L145	Arranging fractions, decimals, and mixed numbers on a number line	Number Sense: 1.2, 1.7, 1.8, 1.9
L146	Multiplying a three-digit number times a three-digit number	Number Sense: 3.2, 3.3
L147	Calculating the area of a parallelogram	Algebra / Functions: 1.4 Measurement / Geometry: 1.4, 3.8
L148	Converting fractions to decimals using division	Number Sense: 1.6
L149	Calculating the surface area of a rectangular prism	Measurement / Geometry: 1.1, 1.4
L150	Calculating the mean, mode and median	Statistics, Data Analysis, Probability: 1.2
L151	Dividing a two-digit divisor into a three-digit dividend with a one-digit quotient	Number Sense: 3.2, 3.4
L152	Determining the rule that creates a pattern	Algebra / Functions: 1.1, 1.2, 1.3, 1.5 Mathematical Reasoning: 1.1, 1.2
L153	Multiplying fractions	Number Sense: 1.5 Mathematical Reasoning: 1.1, 1.2
L154	Multiplying fractions and whole numbers	Number Sense: 1.5, 3.4
L155	Calculating the area of a triangle	Algebra / Functions: 1.3, 1.4, 1.5 Measurement / Geometry: 1.4
Graphing 1	Recording & Interpreting	Statistics, Data Analysis, Probability: 1.1
Graphing 2	Bar & Line Graphs	Statistics, Data Analysis, Probability: 1.1
Graphing 3	Line Graphs	Statistics, Data Analysis, Probability: 1.1



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Graphing 4	Interpreting Line Graphs	Statistics, Data Analysis, Probability: 1.1
Graphing 5	Interpreting Line Graphs	Statistics, Data Analysis, Probability: 1.1
Graphing 6	Pie Graphs	Statistics, Data Analysis, Probability: 1.1
Activity 1	Listing Possibilities	Statistics, Data Analysis, Probability: 2.1, 2.2
Activity 2	Asking Questions	Statistics, Data Analysis, Probability: 1.1, 1.2, 2.2 Mathematical Reasoning: 1.1, 1.2, 2.2, 3.1, 3.3
Activity 3	Arranging Figures	Measurement / Geometry: 1.1, 1.2, 1.3 Mathematical Reasoning: 1.1, 2.3
Activity 4	Creating Squares	Measurement / Geometry: 3.1 Statistics, Data Analysis, Probability: 2.1
Activity 5	Coordinate Points	Measurement / Geometry: 2.5, 2.2, 2.3 Mathematical Reasoning: 1.1, 1.2, 2.3, 3.1, 3.2, 3.3
Activity 6	Advertising Information	Statistics, Data Analysis, Probability: 1.1, 1.3 Mathematical Reasoning: 1.1, 1.2, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3
Activity 7	Perimeter & Area	Measurement / Geometry: 1.1, 1.2, 1.3
Activity 8	Word Problems	Algebra / Functions: 1.2, 1.3 Mathematical Reasoning: 1.1, 2.3, 2.4, 2.5
Activity 9	Strength of Figures	Measurement / Geometry: 3.6
Activity 10	Pieces on a Grid	Measurement / Geometry: 1.1 Mathematical Reasoning: 1.1, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6
Activity 11	Questions from a Story	Algebra / Functions: 1.3 Mathematical Reasoning: 1.1, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2
Activity 12	Number Lines	Number Sense: 1.9

Standards / Objectives	Excel Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
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NUMBER SENSE		
1. Students understand place value of whole numbers and decimals to two decimal places, how these relate to simple fractions, and use concepts of negative numbers.		
1.1 Read and write whole numbers in the millions	Up to millions – 1, 3, 7, 22, 23, 46, 50, 85, 126, 129, 131 Millions – 102	153
1.2 Order and compare whole numbers and decimals to two decimal places	Whole numbers only - 6, 8, 9, 11, 22, 46, 48, 55, 61, 74, 102, 103, 106, 133 With decimals – 26, 85, 86, 100, 105, 117, 131, 136, 141, 145	Whole numbers – 7, 8, 11, 12, 13, 17, 21, 25, 63, 68
1.3 Round whole numbers through the millions to the nearest ten, hundred, thousand, ten thousand or hundred thousand	45, 55, 69, 129	
1.4 Decide when a rounded solution is called for, and explain why such a solution may be appropriate.	45, 55, 69, 104, 129	
1.5 Explain different interpretations of fractions, for example, parts of a whole, parts of a set, and division of whole numbers by whole numbers. Explain equivalents of fractions.	15, 16, 17, 37, 54, 67, 75, 76, 79, 81, 88, 95, 99, 110, 112, 114, 118, 125, 127, 128, 143 Multiplying – 153, 154	59
1.6 Write tenths and hundredths in decimal and fraction notation and know fraction/decimal equivalents for halves and fourths (e.g., $1/2 = 0.5$ or $.50$; $7/4 = 1\ 3/4 = 1.75$)	Decimal only 85, 100, 118, 141, 142 Decimal/fraction - 127, 128, 136, 137, 143, 148	
1.7 Write the fraction represented by a drawing of parts of a figure; represent a given fraction by using drawings; and relate a fraction to simple decimal on a number line	Without number line – 15, 16, 67, 75, 76, 88, 99, 110, 112, 114, 136, 137 With Number line - 145	
1.8 Use concepts of negative numbers (e.g., on a number line, in counting, in temperature, "owing")	117, 133, 140, 145	

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1.9 Identify on a number line the relative position of positive fractions, positive mixed numbers, and positive decimals to two decimal places.	133, 145	Activity 12
2. Students extend their use and understanding of whole numbers to addition and subtraction of simple decimals.		
2.1 Estimate and compute the sum or difference of whole numbers and positive decimals to two places	Add/sub - 11, 18, 26, 86, 104 Multiplication – 12, 141, 142	
2.2 Round two place decimals to one decimal or the nearest whole number, and use rounding to judge the reasonableness of the rounded answer.	104, 131	
3. Students solve problems involving addition		
3.1 Demonstrate understanding of, and the ability to use standard algorithms for addition and subtraction of multi-digit numbers	Two digit – 1, 2, 9, 11, 18, 26, 72, 108 Multi digit – 12, 13, 36, 59, 69, 111, 126	10, 18, 26, 43, 72, 126, 132, 138
3.2 Demonstrate understanding of, and ability to use standard algorithms for multiplying a multi-digit number by a two digit number and for dividing a multi-digit number by a one digit number; use relationships between them to simplify computations and to check results	12, 21, 22, 24, 27, 28, 31, 32, 33, 36, 42, 43, 47, 48, 49, 51, 52, 53, 59, 61, 62, 73, 82, 83, 84, 87, 89, 91, 93, 102, 103, 106, 107, 109, 115, 116, 124, 131, 137, 138, 141, 142, 146, 151	13, 14, 27, 29, 125, 132
3.3 Solve problems involving multiplication of multi-digit numbers by two-digit numbers	32, 47, 62, 84, 91, 116, 129, 131, 137, 141, 142, 146	125, 132
3.4 Solve problems involving division of multi-digit numbers by one-digit numbers	22, 23, 24, 27, 28, 29, 31, 33, 34, 36, 42, 43, 46, 47, 48, 49, 52, 53, 59, 61, 62, 66, 70, 71, 73, 74, 76, 77, 78, 79, 81, 82, 83, 84, 87, 89, 91, 92, 93, 96, 98, 102, 103, 107, 108, 109, 112, 114, 115, 116, 117, 122, 124, 129, 131, 136, 137, 138, 141, 142, 149, 151, 154	153

Standards / Objectives	Excel Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
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4. Students know how to factor small whole numbers.		
4.1 Understand that many whole numbers break down in different ways (e.g., $12 = 4 \times 3 = 2 \times 6 = 2 \times 2 \times 3$)	12, 13, 16, 24, 34, 72, 73, 74, 91, 93, 94, 106, 108	3, 76
4.2 Know that numbers such as 2, 3, 5, 7, 11 do not have any factors except 1 and themselves, and that such numbers are called prime numbers	94, 135	
ALGEBRA AND FUNCTIONS		
1. Students use and interpret variables, mathematical symbols and properties to write and simplify expressions and sentences.		
1.1 Use letters, boxes, or other symbols to stand for any number in simple expressions or equations (e.g., demonstrate understanding the use of the concept of a variable)	8, 14, 22, 34, 35, 72, 74, 87, 134, 152	9, 15, 19, 20, 28, 31, 39, 45, 52, 56, 67, 69, 75, 80, 89, 93, 96, 99, 104, 109, 128, 137, 143
1.2 Interpret and evaluate mathematical expressions that use parentheses	34, 77, 108, 152	31, 67, 69, 86, 129 Activity 8
1.3 Use parentheses to indicate which operation to perform first when writing expressions containing more than two terms and different operations	34, 77, 108, 152, 155	31, 67, 69, 86, 104, 114, 126, 129, 137, 147 Activity 8, 11
1.4 Use and interpret formulas (e.g., Area = length times width or $A = lw$) to answer questions about quantities and their relationships	68, 92, 105, 147, 155	137
1.5 Understand that an equation such as $y = 3x + 5$ is a prescription for determining a second number when a first number is given	14, 34, 134, 152, 155	19
2. Students know how to manipulate equations.		
2.1 Know and understand that equal added to equals are equal		
2.2 Know and understand that equals multiplied by equals are equal	99, 118, 127, 128, 143	16

Standards / Objectives	Excel Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
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MEASUREMENT AND GEOMETRY		
1. Students understand perimeter and area.		
1.1 Measure the area of rectangular shapes, using appropriate units, such as square centimeter ² , square meter ² , square kilometer ² , square inches ² , square yard ² , square mile ²	68, 95, 96, 120, 149 Volume – 95, 105 Weight / balance – 29, 63, 87, 123, 139	94, 118, 125, 135, 137 Activity 3, 7, 10 Weight/Balance – 49, 76, 87, 95, 134, 144, 149, 154
1.2 Recognize that rectangles that have the same area can have different perimeters		135 Activity 3, 7
1.3 Understand that rectangles that have the same perimeter can have different areas.		135 Activity 3, 7
1.4 Understand and use formulas to solve problems involving perimeters and areas of rectangles and squares. Use these formulas to find the areas of more complex figures by dividing the figures into basic shapes	64, 68, 95, 96, 105, 120, 147, 149, 155	4, 82, 94, 118, 125, 135, 150 Activity 7, 10
2. Students use two-dimensional coordinate grids to represent points and graph lines and simple figures		
2.1 Draw the points corresponding to linear relationships on graph paper (e.g., draw ten points on the graph of the equation $y = 3x$ and connect them using a straight line)	65, *97, 130, *140	Activity 5
2.2 Understand that the length of a horizontal line segment equals the difference of the x-coordinates	65, 97, 120, *140 Length of a line – 37	Activity 5
2.3 Understand that the length of a vertical line segment equals the difference of the y-coordinates	65, 97, 120, *140	Activity 5
3. Students demonstrate understanding of plane and solid geometric objects. They use this knowledge to show relationships and solve problems.		
3.1 Identify lines that are parallel and perpendicular	15, 38, 70	Activity 4



California 4th Grade Standards / *Excel Math* Correlation

Standards / Objectives	<i>Excel Math</i> Lesson Numbers	Stretch Lesson Numbers Activity Numbers
3.2 Identify the radius and diameter of a circle	71, 96 Venn Diagrams – 44	Venn Diagrams – 145, 151
3.3 Identify congruent figures	60	
3.4 Identify figures that have bilateral and rotational symmetry	30	36, 53
3.5 Know the definitions of right angle, an acute angle and an obtuse angle. Understand that 90, 180, 270, and 360 degrees are associated, respectively, with 1/4, 1/2, 3/4 and full turns.	70, 78, 132	
3.6 Visualize, describe and represent geometric solids (e.g., prisms, pyramids, etc.) in terms of the number and shape of faces, edges and vertices; interpret two-dimensional representations of three-dimensional objects; and draw patterns (of faces) for a solid that when folded will make a model of the solid	40 Volume of Solids – 95, 123	24, 32, 36 Activity 9
3.7 Know the definitions of different triangles (e.g., equilateral, isosceles, scalene) and identify their attributes.	15, 96, 98	32, 58, 131
3.8 Know the definition of different quadrilaterals (e.g., rhombus, square, rectangle, parallelogram, trapezoid)	39, 96, 144, 147 More than 4 sides - 58	24, 110, 119

Standards / Objectives	Excel Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
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STATISTICS, DATA ANALYSIS AND PROBABILITY		
1. Students organize, represent and interpret numerical and categorical data, and clearly communicate their findings.		
1.1 Formulate survey questions, systematically collect and represent data on a number line, and coordinate graphs, tables and charts	20, 39, 56	86, 97, 112 Activity G1, G2, G3, G4, G5, G6, 2, 6
1.2 Identify the mode(s) for sets of categorical data, and the mode(s), median, and any apparent outliers for numerical data sets	122, 123, 150	Activity 2
1.3 Interpret one- and two-variable data graphs to answer questions about a situation	5, 20, 25, 39, 56, 80, 119	86, 97, 112 Activity 6
2. Students make predictions for simple probability situations.		
2.1 Represent all possible outcomes for a simple probability situation in an organized way (e.g., tables, grids, tree diagrams)	5, 51, 77	5, 14, 22, 26, 71, 85, 91, 103, 111, 121, 132, 140, 141, 142, 146, 155 Activity 1, 4
2.2 Express outcomes of experimental probability situations verbally and numerically (e.g., 3 out of 4; 3/4)	5, 51, 77	5, 14, 22, 26, 71, 85, 91, 103, 111, 121, 132, 140, 141, 142, 146, 155 Activity 1, 2

Standards / Objectives	Excel Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
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MATHEMATICAL REASONING		
1. Students make decisions about how to approach problems.		
1.1 Analyze problems by identifying relationships, discriminating relevant from irrelevant information, sequencing and prioritizing information, and observing patterns	4, 6, 9, 10, 17, 19, 23, 25, 31, 33, 41, 44, 46, 48, 51, 56, 57, 58, 61, 72, 90, 101, 103, 109, 111, 113, 117, 123, 124, 139, 143, 152, 153	1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 16, 17, 21, 22, 23, 25, 26, 27, 28, 29, 30, 34, 35, 37, 38, 40, 41, 42, 46, 47, 48, 50, 51, 54, 55, 57, 60, 61, 62, 63, 64, 66, 70, 71, 72, 73, 74, 77, 79, 81, 82, 83, 84, 86, 87, 88, 91, 92, 95, 96, 97, 98, 100, 101, 102, 103, 105, 106, 107, 108, 111, 112, 113, 115, 116, 120, 122, 123, 124, 127, 130, 133, 136, 138, 140, 141, 142, 145, 146, 147, 148, 149, 151, 153, 154, 155 Activity 2, 3, 5, 6, 8, 10, 11
1.2 Determine when and how to break a problem into simpler parts	4, 31, 33, 41, 44, 51, 56, 57, 72, 90, 101, 103, 111, 113, 123, 124, 139, 143, 152, 153	3, 5, 12, 13, 16, 22, 23, 25, 26, 27, 29, 30, 34, 35, 37, 38, 40, 41, 42, 46, 47, 55, 63, 71, 82, 83, 84, 86, 87, 91, 92, 95, 96, 101, 102, 103, 106, 111, 112, 113, 115, 116, 122, 124, 130, 133, 136, 138, 140, 141, 142, 145, 146, 147, 148, 149, 151, 153, 154, 155 Activity 2, 5, 6
2. Students use strategies, skills and concepts in finding solutions.		
2.1 Use estimation to verify the reasonableness of calculated results	26, 41, 90, 121, 139, 143	13, 23, 24, 25, 34, 38, 38, 41, 54, 71, 78, 79, 86, 96, 105, 106, 112, 115, 148 Activity 10
2.2 Apply strategies and results from simpler problems to more complex problems	26, 41, 90, 121, 139, 143	3, 23, 24, 25, 34, 38, 41, 71, 78, 79, 86, 87, 96, 105, 106, 112, 115, 148 Activity – 2, 6, 10
2.3 Use a variety of methods such as words, numbers, symbols, charts, graphs, tables, diagrams and models to explain mathematical reasoning	1, 17, 18, 19, 21, 25, 26, 27, 28, 41, 42, 43, 44, 52, 53, 56, 59, 72, 90, 101, 109, 113, 121, 139, 143	6, 26, 34, 44, 50, 65, 81, 86, 88, 96, 102, 106, 112, 114, 116, 142, 143, 144, 145, 146, 147, 148, 149, 151, 154, 155 Activity 3, 5, 6, 8, 10, 11

Standards / Objectives	Excel Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
2.4 Express the solution clearly and logically using appropriate mathematical notation and terms and clear language, and support solutions with evidence, in both verbal and symbolic work	1, 17, 18, 19, 21, 25, 26, 27, 28, 41, 42, 43, 44, 56, 72, 90, 101, 109, 113, 121, 139, 143	6, 26, 34, 50, 65, 81, 86, 88, 96, 102, 106, 112, 114, 116, 142, 144, 145, 146, 147, 148, 149, 151, 154, 155 Activity 6, 8, 10, 11
2.5 Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy	1, 17, 18, 19, 21, 25, 26, 27, 28, 41, 42, 43, 44, 72, 90, 101, 109, 121, 129, 139, 143	26, 34, 50, 56, 81, 86, 96, 102, 106, 112, 114, 142, 144, 145, 146, 147, 148, 151, 154, 155 Activity 6, 8, 10, 11
2.6 Make precise calculations and check the validity of the results from the context of the problem	1, 17, 18, 19, 21, 25, 26, 27, 28, 41, 42, 43, 56, 72, 109, 121, 139, 143	26, 34, 56, 81, 86, 96, 102, 106, 112, 114, 142, 144, 145, 146, 147, 148, 149, 151, 154 Activity 6, 10, 11
3. Students move beyond a particular problem by generalizing to other situations.		
3.1 Evaluate the reasonableness of the solution in the context of the original situation	17, 18, 21, 26, 56, 72, 90, 101, 109, 121, 139, 143	1, 2, 3, 23, 26, 34, 42, 50, 96, 142, 144, 145, 146, 147, 148, 149, 151, 154, 155 Activity 2, 5, 6, 11
3.2 Note method of deriving the solution and demonstrate conceptual understanding of the derivation by solving similar problems	17, 18, 21, 26, 56, 72, 90, 101, 109, 121, 139, 143	1, 2, 3, 23, 26, 34, 42, 50, 96, 142, 144, 145, 146, 147, 148, 149, 151, 154, 155 Activity – 5, 6, 11
3.3 Develop generalizations of the results obtained and extend them to other circumstances	17, 18, 21, 26, 56, 72, 90, 101, 109, 121, 139, 143	3, 23, 26, 34, 42, 50, 96, 142, 144, 145, 146, 147, 148, 149, 151, 154, 155 Activity – 2, 5, 6
Concepts not required by the State of CA in 4 th grade but included in the <i>Excel Math</i> curriculum.	Venn Diagrams – 44 Money – 56 Time / Calendar - 18, 19, 57, 66, 111, 124	28, 30, 83, 91, 101, 111, 114, 153 10, 18, 43, 70, 103, 146, 148