Texas 4th Grade TEKS / *Excel* Math Correlation

Texas Essential Knowledge and Skills	*Excel* Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
MATHEMATICAL PROCESS STANDARDS		
(1) The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:		
(A) apply mathematics to problems arising in everyday life, society, and the workplace;	1, 4, 9, 10, 15, 17, 18, 19, 25, 26, 29, 31, 33, 41, 45, 46, 51, 54, 56, 57, 69, 72, 77, 90, 92, 104, 109, 111, 119, 121, 122, 123, 133, 139, 143, 150 Create A Problems 1-24 (back of tests)	1, 2, 5, 10, 12, 14, 18, 20, 22, 23, 26, 27, 29, 33, 34, 35, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 54, 55, 57, 59, 61, 62, 64, 70, 71, 72, 73, 74, 77, 79, 81, 83, 84, 85, 86, 87, 88, 91, 97, 98, 101, 103, 108, 111, 112, 115, 116, 117, 118, 120, 121, 124, 125, 127, 130, 133, 134, 135, 136, 137, 138, 140, 141, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154 Activity 5, 6, 8, 9, 10
(B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;	1, 4, 9, 10, 15, 17, 18, 19, 25, 26, 29, 31, 33, 41, 45, 46, 51, 54, 56, 57, 69, 72, 77, 90, 92, 104, 109, 111, 119, 121, 122, 123, 133, 139, 143, 150 Create A Problems 1-24 (back of tests)	1, 2, 5, 10, 12, 14, 18, 20, 22, 23, 26, 27, 29, 33, 34, 35, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 54, 55, 57, 59, 61, 62, 64, 70, 71, 72, 73, 74, 77, 79, 81, 83, 84, 85, 86, 87, 88, 91, 97, 98, 101, 103, 108, 111, 112, 115, 116, 117, 118, 120, 121, 124, 125, 127, 130, 133, 134, 135, 136, 137, 138, 140, 141, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154 Activity 5, 6, 8, 9, 10
(C) select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;	1, 4, 9, 10, 15, 17, 18, 19, 25, 26, 29, 31, 33, 41, 45, 46, 51, 54, 56, 57, 69, 72, 77, 90, 92, 104, 109, 111, 119, 121, 122, 123, 133, 139, 143, 150 Create A Problems 1-24 (back of tests)	1, 2, 5, 10, 12, 14, 18, 20, 22, 23, 26, 27, 29, 33, 34, 35, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 54, 55, 57, 59, 61, 62, 64, 70, 71, 72, 73, 74, 77, 79, 81, 83, 84, 85, 86, 87, 88, 91, 97, 98, 101, 103, 108, 111, 112, 115, 116, 117, 118, 120, 121, 124, 125, 127, 130, 133, 134, 135, 136, 137, 138, 140, 141, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154 Activity 5, 6, 8, 9, 10

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Texas Essential Knowledge and Skills	*Excel* Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;	1, 4, 9, 10, 15, 17, 18, 19, 25, 26, 29, 31, 33, 41, 45, 46, 51, 54, 56, 57, 69, 72, 77, 90, 92, 104, 109, 111, 119, 121, 122, 123, 133, 139, 143, 150 Create A Problems 1-24 (back of tests)	1, 2, 5, 10, 12, 14, 18, 20, 22, 23, 26, 27, 29, 33, 34, 35, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 54, 55, 57, 59, 61, 62, 64, 70, 71, 72, 73, 74, 77, 79, 81, 83, 84, 85, 86, 87, 88, 91, 97, 98, 101, 103, 108, 111, 112, 115, 116, 117, 118, 120, 121, 124, 125, 127, 130, 133, 134, 135, 136, 137, 138, 140, 141, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154 Activity 5, 6, 8, 9, 10
(E) create and use representations to organize, record, and communicate mathematical ideas;	1, 4, 9, 10, 15, 17, 18, 19, 25, 26, 29, 31, 33, 41, 45, 46, 51, 54, 56, 57, 69, 72, 77, 90, 92, 104, 109, 111, 119, 121, 122, 123, 133, 139, 143, 150 Create A Problems 1-24 (back of tests)	1, 2, 5, 10, 12, 14, 18, 20, 22, 23, 26, 27, 29, 33, 34, 35, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 54, 55, 57, 59, 61, 62, 64, 70, 71, 72, 73, 74, 77, 79, 81, 83, 84, 85, 86, 87, 88, 91, 97, 98, 101, 103, 108, 111, 112, 115, 116, 117, 118, 120, 121, 124, 125, 127, 130, 133, 134, 135, 136, 137, 138, 140, 141, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154 Activity 5, 6, 8, 9, 10
(F) analyze mathematical relationships to connect and communicate mathematical ideas; and	1, 4, 9, 10, 15, 17, 18, 19, 25, 26, 29, 31, 33, 41, 45, 46, 51, 54, 56, 57, 69, 72, 77, 90, 92, 104, 109, 111, 119, 121, 122, 123, 133, 139, 143, 150 Create A Problems 1-24 (back of tests)	1, 2, 5, 10, 12, 14, 18, 20, 22, 23, 26, 27, 29, 33, 34, 35, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 54, 55, 57, 59, 61, 62, 64, 70, 71, 72, 73, 74, 77, 79, 81, 83, 84, 85, 86, 87, 88, 91, 97, 98, 101, 103, 108, 111, 112, 115, 116, 117, 118, 120, 121, 124, 125, 127, 130, 133, 134, 135, 136, 137, 138, 140, 141, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154 Activity 5, 6, 8, 9, 10
(G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.	1, 4, 9, 10, 15, 17, 18, 19, 25, 26, 29, 31, 33, 41, 45, 46, 51, 54, 56, 57, 69, 72, 77, 90, 92, 104, 109, 111, 119, 121, 122, 123, 133, 139, 143, 150 Create A Problems 1-24 (back of tests)	1, 2, 5, 10, 12, 14, 18, 20, 22, 23, 26, 27, 29, 33, 34, 35, 37, 38, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 54, 55, 57, 59, 61, 62, 64, 70, 71, 72, 73, 74, 77, 79, 81, 83, 84, 85, 86, 87, 88, 91, 97, 98, 101, 103, 108, 111, 112, 115, 116, 117, 118, 120, 121, 124, 125, 127, 130, 133, 134, 135, 136, 137, 138, 140, 141, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154 Activity 5, 6, 8, 9, 10

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Texas 4th Grade TEKS / *Excel* Math Correlation

Texas Essential Knowledge and Skills	*Excel* Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
NUMBER AND OPERATIONS		
(2) The student applies mathematical process standards to represent, compare, and order whole numbers and decimals and understand relationships related to place value. The student is expected to:		
(A) interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left;	1, 2, 3, 6, 7, 12, 22, 27, 28, 32, 36, 42, 43, 45, 47, 48, 50, 52, 53, 55, 57, 85, 86, 102, 129, 131, 141	67, *96, 153
(B) represent the value of the digit in whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation and numerals;	Whole: 1, 2, 3, 7, 8, 11, 22, 27, 28, 32, 42, 43, 45, 50, 52, 53, 55, 69, 101, 102, 126, 129 Decimals: 11, 85, 86, 131	67, 96, 153
(C) compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols >, <, or =;	8, 35, *45, 48, 74, 85, 105, 129	13, 76, 878, 95, 96, 132
(D) round whole numbers to a given place value through the hundred thousands place;	45, 55, 69, 90, 129, 131	
(E) represent decimals, including tenths and hundredths, using concrete and visual models and money;	11, 12, 16, 26, 61, 83, 85, 100, 104, 105, 109, 131, 137, 141, 145 http://www.excelmath.com/downloads/manipulatives.html	83
(F) compare and order decimals using concrete and visual models to the hundredths;	9, 100, 105, 115, 117, 137, *145	
(G) relate decimals to fractions that name tenths and hundredths; and	85, 100, 118, 137, *145, 148	
(H) determine the corresponding decimal to the tenths or hundredths place of a specified point on a number line.	55, *85, *100, 104, 131, *137, 145, 148, 154 http://www.excelmath.com/downloads/manipulatives.html	

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Texas Essential Knowledge and Skills	*Excel* Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
NUMBER AND OPERATIONS		
(3) The student applies mathematical process standards to represent and generate fractions to solve problems. The student is expected to:		
(A) represent a fraction *a/b* as a sum of fractions 1/*b*, where *a* and *b* are whole numbers and *b* > 0, including when a > b;	*15, 16, 18, 54, 67, 75, 76, 81, 88, 95, 99, 110, 112, 114, 118, 127, 128, 136, 137, 143, 148	13, 59 Activity 3, 16, 17
(B) decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations;	16, 54, 67, 75, 76, 88, 95, 99, 110, 112, 118, 127, 128, 136, 148	*59 Activity 16, 17
(C) determine if two given fractions are equivalent using a variety of methods;	75, 88, 95, 99, 110, 112, 118, 127, 128, 136, 143	Activity 3, 17
(D) compare two fractions with different numerators and different denominators and represent the comparison using the symbols >, =, or <;	75, 79, 88, 95, 99, 110, 112, 118, 125, 127, 128, 143	Activity 3, 17
(E) represent and solve addition and subtraction of fractions with equal denominators using objects and pictorial models that build to the number line and properties of operations;	16, 18, 67, 76, 81, 88, 112, 153, 154 Additional manipulatives: http://excelmath.com/downloads/NumberLineFraction.pdf	
(F) evaluate the reasonableness of sums and differences of fractions using benchmark fractions 0, 1/4, 1/2, 3/4, and 1, referring to the same whole; and	16, 67, 76, 81, 88, 112, 154	
(G) represent fractions and decimals to the tenths or hundredths as distances from zero on a number line.	75, 76, *85, *112, *118, *137, *148, 145, 154 Additional Manipulatives: http://excelmath.com/downloads/NumberLineFraction.pdf	Activity *16

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Texas 4th Grade TEKS / *Excel* Math Correlation

Texas Essential Knowledge and Skills	*Excel* Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
NUMBER AND OPERATIONS		
(4) The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. The student is expected to:		
(A) add and subtract whole numbers and decimals to the hundredths place using the standard algorithm;	Whole: 1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 18, 22, 24, 31, 35, 36, 45, 49, 69, 72, 126, 150 Decimals: 9, 11, 12, 26, 45, 61, 69, 86, 104, 116, 117	Whole: 3, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 17, 18, 19, 21, 25, 26, 29, 31, 39, 41, 43, 45, 48, 52, 56, 59, 68, 69, 75, 76, 80, 89, 90, 93, 102, 106, 113, 116, 122, 126, 129, 130, 136, 138, 147, 148, 151 Decimals: 20, 28, 30, 47, 83, 91, 101, 103, 111, 114, 146 Activity 5, 10
(B) determine products of a number and 10 or 100 using properties of operations and place value understandings;	21, 32, 36, 47, 49, 51, *94	Activity 6
(C) represent the product of 2 two-digit numbers using arrays, area models, or equations, including perfect squares through 15 by 15;	4, *21, *32, 36, *47, 51, 59, 73, 84, 87, 91, 102	
(D) use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;	12, 21, 22, 24, 27, 31, 32, 36, 42, 43, 45, 46, 47, 48, 49, 51, 52, 53, 56, 59, 61, 62, 64, 71, 72, 73, 76, 77, 78, 81, 82, 83, 84, 87, 89, 91, 93, 94, 98, 102, 103, *106, 108, 116, 122, 131, 138, 141, 142, 146	Activity 5, 6
(E) represent the quotient of up to a four-digit whole number divided by a one-digit whole number using arrays, area models, or equations;	17, 21, 22, 24, 26, 27, 28, 31, 33, 36, 42, 43, 46, 48, 49, 51, 52, 53, 59, *61, 62, 66, 72, 73, 74, 76, 78, 82, 83, *84, 87, 89, 91, 102, 107, 122, 124, *138, 151	Activity 6

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Texas Essential Knowledge and Skills	*Excel* Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
(F) use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor;	21, 22, 24, 27, 28, 29, 31, 33, 36, 42, 43, 46, 48, 49, 51, 52, 53, 56, 59, 61, 62, 64, 66, 71, 72, 73, 74, 76, 77, 78, 79, 81, 82, 83, 84, 87, 89, 91, 92, 93, 94, 98, 101, 102, 103, 107, 108, 112, 114, 116, 122, 124, 131, 136, 138, 141, 142, 149, 150, 151, 154	Activity 6
(G) round to the nearest 10, 100, or 1,000 or use compatible numbers to estimate solutions involving whole numbers; and	45, 55, 69, 104, 129	
(H) solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders.	4, 9, 12, 17, 18, 19, 21, 22, 23, 24, 26, 27, 31, 32, 33, 34, 36, 42, 43, 45, 46, 47, 48, 49, 51, 52, 53, 54, 56, 59, 61, 62, 63, 64, 72, 73, 82, 83, 84, 87, 89, 107, 109, 115, 122, 124, 138, 148, 151	16, 19, 31, 89, 104, 109, 117, 148, 150 Activity 5, 6

ALGEBRAIC REASONING

(5) The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to:		
(A) represent multi-step problems involving the four operations with whole numbers using strip diagrams and equations with a letter standing for the unknown quantity;	4, 14, 21, 22, 34, 35, 41, 63, *74, 87, 90, 92, 103, *108, 126, 134, 152	6, 9, 11, 14, 15, 19, 21, 28, 31, 33, 35, 39, 41, 43, 45, 48, 52, 55, 56, 67, 69, 75, 80, 89, 90, 92, 93, 99, 102, 104, 109, 114, 128, 129, 143 Activity *6, *10
(B) represent problems using an input-output table and numerical expressions to generate a number pattern that follows a given rule representing the relationship of the values in the resulting sequence and their position in the sequence;	6, 13, 23, 25, *41, 48, 51, 56, 58, 61, *87, 89, *93, 103, 113, 117, 126, 151, 152 Shapes Pattern: 101	6, 8, 12, 16, 21, 25, 59, 62, 63, 71, 77, 79, 105, 113, 121, 122, 124, 136, 142
(C) use models to determine the formulas for the perimeter of a rectangle ($l + w + l + w$ or $2l + 2w$), including the special form for perimeter of a square ($4s$) and the area of a rectangle (l x w); and	64, 68, 96, 120, 147, 149 Parallelogram: 147 Rectangular Prism: 149	135, 137, 150 Activity 7, 8, 9
(D) solve problems related to perimeter and area of rectangles where dimensions are whole numbers.	64, 68, 96, 120, 147, 149 Parallelogram: 147 Rectangular Prism: 149	65, 94, 135, 137, 150 Triangle: 155 Activity 7, 8, 9

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Texas Essential Knowledge and Skills	*Excel* Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
GEOMETRY AND MEASUREMENT		
(6) The student applies mathematical process standards to analyze geometric attributes in order to develop generalizations about their properties. The student is expected to:		
(A) identify points, lines, line segments, rays, angles, and perpendicular and parallel lines;	37, 38, 39, 70, 78, 97	
(B) identify and draw one or more lines of symmetry, if they exist, for a two-dimensional figure;	30 http://www.excelmath.com/downloads/manipulatives.html	Activity 13
(C) apply knowledge of right angles to identify acute, right, and obtuse triangles; and	*15, 78, 98	*32, *58
(D) classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size.	15, 38, 39, *44, 58, *60, *64, *68, *71, 98, *101, 144	4, 24, 32, 36, 44, 53, 58, 66, 78, 82, 94, 100, 107, 110, 119, 123, 125, 131
GEOMETRY AND MEASUREMENT		
(7) The student applies mathematical process standards to solve problems involving angles less than or equal to 180 degrees. The student is expected to:		
(A) illustrate the measure of an angle as the part of a circle whose center is at the vertex of the angle that is "cut out" by the rays of the angle. Angle measures are limited to whole numbers;	*70, 71, 96, 132	Activity 14
(B) illustrate degrees as the units used to measure an angle, where 1/360 of any circle is one degree and an angle that "cuts" n/360 out of any circle whose center is at the angle's vertex has a measure of n degrees. Angle measures are limited to whole numbers;	70, *78, 98, 132	Activity 14
(C) determine the approximate measures of angles in degrees to the nearest whole number using a protractor;	70, *78, 98, 132	Activity 14
(D) draw an angle with a given measure; and	70, 78, 132	Activity 14
(E) determine the measure of an unknown angle formed by two non-overlapping adjacent angles given one or both angle measures.	70, *132	Activity 14

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GEOMETRY AND MEASUREMENT

(8) The student applies mathematical process standards to select appropriate customary and metric units, strategies, and tools to solve problems involving measurement. The student is expected to:

(A) identify relative sizes of measurement units within the customary and metric systems;	29, 30, 37, 63, 73, 87, 121, 123, 124 Create A Problem 10, 11, 12, 14, 15, 16, 17, 18	Activity 2, 11, 12
(B) convert measurements within the same measurement system, customary or metric, from a smaller unit into a larger unit or a larger unit into a smaller unit when given other equivalent measures represented in a table; and	29, 37, 63, 73, 87, 121, 124 Create A Problem 10, 11, 12, 14, 15, 16, 17, 18	Activity 2, 11, 12
(C) solve problems that deal with measurements of length, intervals of time, liquid volumes, mass, and money using addition, subtraction, multiplication, or division as appropriate.	Length: 10, 29, 37, 63, 73, 90, 92, 97, 121, 123 Intervals of Time: 10, 18, 19, 57, 66, 92, 111, 124 Liquid Volumes: *95, *105 Mass: 29, *63, *95, *123 Money: 9, 10, 11, 12, 26, 56, 61, 83, 86, 90, 104, 109, 116, 139, 141 Create A Problem 12, 14, 15, 16, 17, 18, 21, 22, 23 Additional manipulatives: http://www.excelmath.com/downloads/manipulatives.html	Length: *35, *125, *135, *137, *138, *150 Intervals of Time: 10, 18, 43, 70, 138, 148 Liquid Volumes: *23, Activity 16 Mass: *23, 49, *76, *87, *95, 133, *134, *139, *144, *149, *154 Money: 20, 28, 30, 47, 83, 91, 101, 103, 111, 114, 146 Activity 2, 5, 11, 15

DATA ANALYSIS

(9) The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to:

(A) represent data on a frequency table, dot plot, or stem-and-leaf plot marked with whole numbers and fractions; and	5, 20, *80, 119, 152 Create A Problem 17, 18	86, 97, 112 Activity 1
(B) solve one- and two-step problems using data in whole number, decimal, and fraction form in a frequency table, dot plot, or stem-and-leaf plot.	5, 20, *80, 119, 152 Create A Problem 17, 18	86, 97, 112 Activity 1

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PERSONAL FINANCIAL LITERACY

(10) The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:		
(A) distinguish between fixed and variable expenses;	*9, *56, *90, *104, *109, *123 Create A Problem 5, 6, 7, 19, 20, 21, 22, 23	Activity 10
(B) calculate profit in a given situation;	*9, *56, *90, *104, *109, *123 Create A Problem 5, 6, 7, 19, 20, 21, 22, 23	Activity *10
(C) compare the advantages and disadvantages of various savings options;	*9, *56, *90, *104, *109, *123 Create A Problem 5, 6, 7, 19, 20, 21, 22, 23	Activity 10
(D) describe how to allocate a weekly allowance among spending; saving, including for college; and sharing; and	*9, *56, *90, *104, *109, *123 Create A Problem 5, 6, 7, 19, 20, 21, 22, 23	Activity *5, *6, 10
(E) describe the basic purpose of financial institutions, including keeping money safe, borrowing money, and lending.	*9, *56, *90, *104, *109, *123 Create A Problem 5, 6, 7, 19, 20, 21, 22, 23	Activity *10

Please Note: Excel Math does not have a specific curriculum component for **'Personal Financial Literacy,'** but the above referenced Lessons and Activities give opportunity for teachers to teach these concepts.

These are advanced Excel Math concepts that go beyond Texas Standards for Grade 4 but may be required by some districts:

Concept	Lesson	Stretch		Concept	Lesson	Stretch
Odd/Even Numbers	17			Percents	127, 128, 136, 143, 148	
Ordinals	46			Averages	122	
Ratios	56			Mean/Median/Mode	150	
Factors / Prime	93, 94, 106, 135			Three Dimensional	40, 95, 105	140, 141
Positive / Negative Numbers	133			Venn Diagrams	44	145, 151
Divide decimals	107, 109, 115, 148			Congruent Figures	60	
Divide fractions	110			Coordinate points	65, 97, 130, 140	
Multiply decimals	116, 141, 142					

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