

Texas Essential Knowledge and Skills	Excel Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
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<b>MATHEMATICAL PROCESS STANDARDS</b>		
(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;	2, 4, 5, 7, 8, 9, 10, 13, 14, 15, 16, 25, 29, 32, 40, 44, 51, 57, 58, 60, 69, 70, 73, 74, 79, 83, 89, 92, 102, 103, 109, 114, 116, 117, 133, 130, 142, 149	5, 6, 7, 9, 10, 11, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 36, 37, 38, 39, 42, 44, 46, 47, 48, 51, 53, 54, 55, 57, 58, 59, 61, 62, 64, 65, 66, 68, 70, 74, 75, 77, 79, 80, 83, 86, 89, 90, 92, 95, 96, 98, 99, 101, 102, 103, 105, 106, 107, 108, 111, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 129, 130, 131, 133, 135, 137, 138, 140, 145, 146, 148, 149, 150, 151, 152, 153, 154  Activity 2, 3, 4, 5, 6, 7, 8, 12
(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;	2, 4, 5, 7, 8, 9, 10, 13, 14, 15, 16, 25, 29, 32, 40, 44, 51, 57, 58, 60, 69, 70, 73, 74, 79, 83, 89, 92, 102, 103, 109, 114, 116, 117, 133, 130, 142, 149	5, 6, 7, 9, 10, 11, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 36, 37, 38, 39, 42, 44, 46, 47, 48, 51, 53, 54, 55, 57, 58, 59, 61, 62, 64, 65, 66, 68, 70, 74, 75, 77, 79, 80, 83, 86, 89, 90, 92, 95, 96, 98, 99, 101, 102, 103, 105, 106, 107, 108, 111, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 129, 130, 131, 133, 135, 137, 138, 140, 145, 146, 148, 149, 150, 151, 152, 153, 154  Activity 2, 3, 4, 5, 6, 7, 8, 12
(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;	2, 4, 5, 7, 8, 9, 10, 13, 14, 15, 16, 25, 29, 32, 40, 44, 51, 57, 58, 60, 69, 70, 73, 74, 79, 83, 89, 92, 102, 103, 109, 114, 116, 117, 133, 130, 142, 149	5, 6, 7, 9, 10, 11, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 36, 37, 38, 39, 42, 44, 46, 47, 48, 51, 53, 54, 55, 57, 58, 59, 61, 62, 64, 65, 66, 68, 70, 74, 75, 77, 79, 80, 83, 86, 89, 90, 92, 95, 96, 98, 99, 101, 102, 103, 105, 106, 107, 108, 111, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 129, 130, 131, 133, 135, 137, 138, 140, 145, 146, 148, 149, 150, 151, 152, 153, 154  Activity 2, 3, 4, 5, 6, 7, 8, 12



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(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;	2, 4, 5, 7, 8, 9, 10, 13, 14, 15, 16, 25, 29, 32, 40, 44, 51, 57, 58, 60, 69, 70, 73, 74, 79, 83, 89, 92, 102, 103, 109, 114, 116, 117, 133, 130, 142, 149	5, 6, 7, 9, 10, 11, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 36, 37, 38, 39, 42, 44, 46, 47, 48, 51, 53, 54, 55, 57, 58, 59, 61, 62, 64, 65, 66, 68, 70, 74, 75, 77, 79, 80, 83, 86, 89, 90, 92, 95, 96, 98, 99, 101, 102, 103, 105, 106, 107, 108, 111, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 129, 130, 131, 133, 135, 137, 138, 140, 145, 146, 148, 149, 150, 151, 152, 153, 154  Activity 2, 3, 4, 5, 6, 7, 8, 12
(E) create and use representations to organize, record, and communicate mathematical ideas;	2, 4, 5, 7, 8, 9, 10, 13, 14, 15, 16, 25, 29, 32, 40, 44, 51, 57, 58, 60, 69, 70, 73, 74, 79, 83, 89, 92, 102, 103, 109, 114, 116, 117, 133, 130, 142, 149	5, 6, 7, 9, 10, 11, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 36, 37, 38, 39, 42, 44, 46, 47, 48, 51, 53, 54, 55, 57, 58, 59, 61, 62, 64, 65, 66, 68, 70, 74, 75, 77, 79, 80, 83, 86, 89, 90, 92, 95, 96, 98, 99, 101, 102, 103, 105, 106, 107, 108, 111, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 129, 130, 131, 133, 135, 137, 138, 140, 145, 146, 148, 149, 150, 151, 152, 153, 154  Activity 2, 3, 4, 5, 6, 7, 8, 12
(F) analyze mathematical relationships to connect and communicate mathematical ideas; and	2, 4, 5, 7, 8, 9, 10, 13, 14, 15, 16, 25, 29, 32, 40, 44, 51, 57, 58, 60, 69, 70, 73, 74, 79, 83, 89, 92, 102, 103, 109, 114, 116, 117, 133, 130, 142, 149	5, 6, 7, 9, 10, 11, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 36, 37, 38, 39, 42, 44, 46, 47, 48, 51, 53, 54, 55, 57, 58, 59, 61, 62, 64, 65, 66, 68, 70, 74, 75, 77, 79, 80, 83, 86, 89, 90, 92, 95, 96, 98, 99, 101, 102, 103, 105, 106, 107, 108, 111, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 129, 130, 131, 133, 135, 137, 138, 140, 145, 146, 148, 149, 150, 151, 152, 153, 154  Activity 2, 3, 4, 5, 6, 7, 8, 12
(G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.	2, 4, 5, 7, 8, 9, 10, 13, 14, 15, 16, 25, 29, 32, 40, 44, 51, 57, 58, 60, 69, 70, 73, 74, 79, 83, 89, 92, 102, 103, 109, 114, 116, 117, 133, 130, 142, 149	5, 6, 7, 9, 10, 11, 14, 15, 16, 17, 19, 20, 23, 24, 26, 27, 28, 29, 30, 31, 33, 35, 36, 37, 38, 39, 42, 44, 46, 47, 48, 51, 53, 54, 55, 57, 58, 59, 61, 62, 64, 65, 66, 68, 70, 74, 75, 77, 79, 80, 83, 86, 89, 90, 92, 95, 96, 98, 99, 101, 102, 103, 105, 106, 107, 108, 111, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 129, 130, 131, 133, 135, 137, 138, 140, 145, 146, 148, 149, 150, 151, 152, 153, 154  Activity 2, 3, 4, 5, 6, 7, 8, 12

\*Gives opportunity to teach specific State Standard

Texas Essential Knowledge and Skills	<i>Excel Math</i> Lesson Numbers	Stretch Lesson Numbers Activity Numbers
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<b>NUMBER AND OPERATIONS</b>
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(2) The student applies mathematical process standards to represent, compare, and order positive rational numbers and understand relationships as related to place value. The student is expected to:		
(A) represent the value of the digit in decimals through the thousandths using expanded notation and numerals	Whole Numbers: 1, 21, 26, 27, 29, 33, 34, 80 Decimals: 4, 65, 100, 112, 120, 121, 131, 132, 136, 138	Whole Numbers: 144 Decimals: 13 Activity 6, 7
(B) compare and order two decimals to thousandths and represent comparisons using the symbols $>$ , $<$ , or $=$	Whole Numbers: 6, 37(equations) Fractions / Decimals: 43, 65, 78, 105, 112, 113, 116, 125, 136 Decimals: 85, 98, 100, 111, 116, 148	Whole Numbers: 8, 91, 97
(C) round decimals to tenths or hundredths	Whole Numbers: 25 Decimals: 41, 92, 121	Activity 6

<b>NUMBER AND OPERATIONS</b>
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(3) The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. The student is expected to:		
(A) estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division	12, *16, *21, 25, 29, 32, 41, 70, 82, 92, 102, 103, 114, 116, 117, 130, 133	12, 14, 17, 19, 20, 24, 29, 33, 36, 47, 54, 55, 61, 70, 79, 80, 95, 96, 98, 99, 102, 106, 111, 113, 114, 119, 120, 121, 122, 124, 125, 133, 137, 138, 139, 148, 150, 152, 154 Activity 6, 7
(B) multiply with fluency a three-digit number by a two-digit number using the standard algorithm	2, 11, 21, 22, 24, 28, 36, 38, 46, 47, 73, 101, 107, 114, 119, 128, 138, 139, 141 Multiplication facts: 16, 49, 55, 73	52, 113, 125, 155
(C) solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm	9, 11, 16, 21, 26, 27, 28, 29, 33, 34, 36, 38, 46, 47, 49, 51, 58, 70, 71, 73, 74, 86, 97, 101, 102, 103, 106, 107, 111, 114, 119, 121, 128, 131, 141, 146	125, 133, 155
(D) represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models	3, 13, 41, 46, 47, 55, 79, 81, 94, 97, 100, 107, 112, 116, 120, 125, 131, 132, 145, 149	79, 80, *89

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(E) solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers	3, 4, 13, 31, 41, 46, 47, 55, 70, 79, 81, 94, 97, 100, 112, 116, 107, 120, 121, 131, 132, 145, 149	9, 13, 64, 79, 80, 89, 119, 129 Activity *6 Addition; 18, 20, Activity 6
(F) represent quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using objects and pictorial models, including area models	41, 46, 47, 79, 94, 97, 100, 127, 136, 147	Activity 7
(G) solve for quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using strategies and algorithms, including the standard algorithm	41, 46, 47, 79, 94, 97, 100, 136, 147	Activity 7
(H) represent and solve addition and subtraction of fractions with unequal denominators referring to the same whole using objects and pictorial models and properties of operations	Represent: 15, 31, 106, 125 Addition / Subtraction: 23, 50, 69, 77, 78, 99, 122, 148, 151, 154	44, 132
(I) represent and solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models	39, *83, 110, 113, 118, 126, 130, 133, 135, 142, 144, 145, 153 Compare: 43, 68, 78, 105, 127 Fraction X fraction: 109, 118, 126, 154	126
(J) represent division of a unit fraction by a whole number and the division of a whole number by a unit fraction such as $1/3 \div 7$ and $7 \div 1/3$ using objects and pictorial models, including area models	9, 44, 59, 76, 117, 109, 129, 135, 136, 146, *153	8
(K) add and subtract positive rational numbers fluently	1, 2, 3, 4, 7, 8, 10, 13, 15, 16, 24, 25, 31, 32, 36, 50, 57, 66, 69, 73, 92, 104, 108, 111, 124, 135	4, 12, 18, 31, 69, 92, 96, 103, 107, 116, 124, 132, 145, 155 Activity 6
(L) divide whole numbers by unit fractions and unit fractions by whole numbers	9, *59, 129, 135, 146	127

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<b>ALGEBRAIC REASONING</b>		
(4) The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to:		
(A) identify prime and composite numbers	61, 62, 93	
(B) represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity	10, 14, 16, 18, 19, 32, 37, 55, 74, 77, 82, 124, 127, 140, 143	1, 2, 3, 4, 21, 32, 41, 52, 58, 67, 72, 81, 87, 107, 109, 110, 130, 141, 146, 147
(C) generate a numerical pattern when given a rule in the form $y = ax$ or $y = x + a$ and graph	*13, *19, *37, 55, 77, 86, 104, *108, 140, 143	*18  Activity 5
(D) recognize the difference between additive and multiplicative numerical patterns given in a table or graph	*6, *7, 13, *16, *37, 55, 87, *104, *111, 140, 143	7, 9, 24, 31, 47, 59, *66, *84, 105, 150
(E) describe the meaning of parentheses and brackets in a numeric expression	18, 19, 39, 43, 96, 108, 124, 127, 144, 153, 154, 155	21, 81, 110, 120, 127, 129, 130, 147, 155
(F) simplify numerical expressions that do not involve exponents, including up to two levels of grouping	14, 18, 19, 37, 39, 43, 55, 82, 96, 108, 124, 127, 138, 140, 155  Exponents: 138	127
(G) use concrete objects and pictorial models to develop the formulas for the volume of a rectangular prism, including the special form for a cube ( $V = l \times w \times h$ , $V = s \times s \times s$ , and $V = Bh$ )	72, 84, 134	Activity 9, 12
(H) represent and solve problems related to perimeter and/or area and related to volume	54, 56, 63, 72, 95, 152  Parallelogram; 134	*106, *122, *138, *139, *140, 143, *147  Activity 8, 9, 12, 13

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**GEOMETRY AND MEASUREMENT**

(5) The student applies mathematical process standards to classify two-dimensional figures by attributes and properties. The student is expected to:		
(A) classify two-dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties	30, 35, 42, 45, *53, 56, 63, 71  Three-Dimensional: 20	15, 22, 25, 34, 40, 43, 45, 49, 50, 60, 63, 71, 73, 78, 85, 88, 100, 104, 112, 136, Activity 10  Three-Dimensional: 76, 93, 94, 128, 134, 142, Activity 9, 12
(B) determine the volume of a rectangular prism with whole number side lengths in problems related to the number of layers times the number of unit cubes in the area of the base	72, 84, 134, 137  Area of Parallelogram: 134	143  Activity 9, 12

**GEOMETRY AND MEASUREMENT**

(6) The student applies mathematical process standards to understand, recognize, and quantify volume. The student is expected to:		
(A) recognize a cube with side length of one unit as a unit cube having one cubic unit of volume and the volume of a three-dimensional figure as the number of unit cubes (n cubic units) needed to fill it with no gaps or overlaps if possible; and	20, 72, 84, 137	93, 94, 143  Activity 9, 12
(B) determine the volume of a rectangular prism with whole number side lengths in problems related to the number of layers times the number of unit cubes in the area of the base.	72, 84, 137	*143  Activity 9, 12

**GEOMETRY AND MEASUREMENT**

(7) The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving measurement. The student is expected to:		
(A) solve problems by calculating conversions within a measurement system, customary or metric	12, 17, 48, 58, 67, 103, 113, 114  Time: 8, 31, 51, 73	137

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**GEOMETRY AND MEASUREMENT**

(8) The student applies mathematical process standards to identify locations on a coordinate plane. The student is expected to:		
(A) describe the key attributes of the coordinate plane, including perpendicular number lines (axes) where the intersection (origin) of the two lines coincides with zero on each number line and the given point (0, 0); the x-coordinate, the first number in an ordered pair, indicates movement parallel to the x-axis starting at the origin; and the y-coordinate, the second number, indicates movement parallel to the y-axis starting at the origin.	52, 53, 64, 90, 95, 104, 123, 140, 143	Activity 1, 5, 11
(B) describe the process for graphing ordered pairs of numbers in the first quadrant of the coordinate plane	52, 53, 64, 86, 90, 95, 104, 123, 140, 143	Activity 1, 5, 11
(C) graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input-output table.	*52, 53, *64, *90, *95, 123, 140, 143	Activity 5, 11

**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 categorical data with bar graphs or frequency tables and numerical data, including data sets of measurements in fractions or decimals, with dot plots or stem-and-leaf plots	5, 8, 13, 40, 86, 115, 116	5, 11 Activity 2, 3 Venn diagrams 117
(B) represent discrete paired data on a scatterplot	*40	Activity 2
(C) solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot	5, 8, 13, 40, 86, 115, 116, 143	5, 11 Activity 2, 3



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<b>PERSONAL FINANCIAL LITERACY</b>		
(10) The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:		
(A) define income tax, payroll tax, sales tax, and property tax	*79, 97, 149	9, 64, 79, 80, 89, *121, 129 Activity 4 *7
(B) explain the difference between gross income and net income	*4, *79, *97, *149	*121, *129 Activity 4 *7
(C) identify the advantages and disadvantages of different methods of payment, including check, credit card, debit card, and electronic payments	*4, *79, *97, *149	*64, *79, *80, *89, *119, *121, *129 Activity 4 *7
(D) develop a system for keeping and using financial records	*4, *79, *97, *149	9, *20, *64, *79, *80, *89, *105, *119, *121, *129 Activity 4 *7
(E) describe actions that might be taken to balance a budget when expenses exceed income	*4, *79, *97, *149	9, *20, *64, *79, *80, *89, *105, *119, *121, *129 Activity 4
(F) balance a simple budget	*4, *79, *97, *149	9, *20, *64, *79, *80, *89, *105, *119, *121, *129 Activity 4 *7

**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 5 but may be required by some districts. Alternate TEKS Activities are provided in the Teacher Edition for these Lessons:**

Concept	Lesson Number	Stretch Number
Odd / Even	87	95
Ordinals	13	
Factors / Multiples	61, 88, 91	
Positive / Negative Numbers	150, 151, 154	
Pattern of Shapes	42, 86	45, 56
Flips, Slides, Turns	45	
Distance, Time, Speed	74	
Circle	75	
Venn Diagrams	53	
Probability / Possibility	60, 117	
Roman Numerals	108	

\*Gives opportunity to teach specific State Standard