



**New Mexico / Excel Math Correlation**  
**Grade 5**

New Mexico Standards / Objectives	Excel Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
<b>Mathematics Standard 1 - NUMBER AND OPERATIONS:</b> Students will understand numerical concepts and mathematical operations.		
<b>A. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.</b>		
1. Compare and order using concrete or illustrated models:		
a. Whole numbers (to millions)	1, 6, 9, 28, 80, 87, 121 Integers: 89, 150	3, 8, 12, 66, 69, 82, 91, 92, 97, 103, 116, 144
b. Common fractions (halves, thirds, fourths, eighths)	15, 31, 39, 43, 59, 65, 68, 76, 77, 78, 83, 99, 105, 109, 113, 127	
c. Decimals (thousandths)	4, *31, 65, 85, 98, 100, 111, 121	
2. Demonstrate understanding of the magnitude of the value of numbers from thousandths to millions, including common fractions.	2, 15, 21, 26, 27, 28, 33, 34, 36, 59, 65, 80, 82, 89, 100, 108, 112, 131	52, 70, 109, 141, 144
3. Represent place value using concrete or illustrated models up to one billion (1,000,000,000).	1, 2, 3, 6, 9, 24, 25, 26, 27, 33, 34, 36, 41, 46, 65, 80, 81, 82, 85, 92, 100, 108, 112 Ordinals: 13, 98	109
4. Interpret percents as part of a hundred (i.e., find decimal and percent equivalents for common fractions, explain how they represent the same value, and compute a given percent of a whole number).	83, 109, 112, 116, 125, 130, 142, 149	148 Activity 14
5. Identify and represent on a number line decimals, fractions, and mixed numbers.	41, *43, *59, *65, *78, *83, *85, *92, *112, 148	
6. Identify prime and composite numbers to 50.	62, 93	102
<b>B. Understand the meaning of operations and how they relate to one another.</b>		
1. Explain and perform whole number division and express remainders as a whole number or a fractional part as appropriate to the context of real-life problems.	9, 29, 32, 44, 51, 70, 74, 79, 97, 102, 103, 114, 135	10, 17, 19, 29, 44, 70, 98, 99, 121, 127, 130, 133
2. Add and subtract decimals.	3, 4, 66, 82, 92 Divide Decimals: 41, 46, 47, 76, 79, 94, 100, 120, 147 Multiply Decimals: 81, 107, 112, 116, 120, 131, 132	20, 64, 79, 80, 89, 119, 121, 129 Activity 7



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3. Add and subtract fractions and mixed numbers without regrouping and express answers in simplest form.	23, 50, 69, 99, 122 Multiply Fractions: 39, 110, 113, 118, 126, 133, 153 Divide Fractions: 59, 129, 153	132, 133
4. Find the factors and multiples of whole numbers.	28, 29, 38, 49, 61, 62, 88, 91, 97, 119, 141 Exponents: 138	95, 98, 102, 149
5. Use arithmetic operations and inverse relationships to represent and solve real-world problems.	2, 4, 7, 13, 15, 16, 25, 29, 32, 44, 55, 58, 70, 73, 79, 81, 82, 83, 89 *92, 97, 102, 103, 149	*5, 10, 13, 17, 19, 29, 31, 33, 52, 58, 64, 67, 70, 72, 79, 95, 99, 103, 106, 114, 116, 119, 120, 124
6. Identify and represent on a number line decimals, fractions, and mixed numbers.	41, *43, *59, *65, *78, *83, *85, *92, *112, 148	
7. Demonstrate proficiency with division, including one- and two-digit divisors.	9, 11, 21, 26, 27, 28, 29, 31, 32, 33, 34, 36, 38, 41, 44, 46, 47, 49, 51, 59, 63, 71, 73, 74, 86, 94, 97, 100, 101, 102, 103, 106, 107, 111, 114, 119, 121, 128, 131, 141, 146	10, 17, 19, 21, 29, 44, 55, 61, 81, 87, 106, 107, 121, 125, 127, 155
8. Solve simple problems involving the addition and subtraction of fractions and mixed numbers.	*23, 50, 69, 99, 122 Multiply Fractions: 39, 110, 113, 115, 126, 133, 153 Divide Fractions: 59, 129, 153	132, 133
9. Represent and use fractions and decimals in equivalent forms.	*31, 65, 83, 85, 112, 136, 142 Percents: 125, 130, 149	Percent: Activity 14
<b>C. Compute fluently and make reasonable estimates.</b>		
1. Add, subtract, multiply, and divide whole numbers.	1, 2, 3, 4, 9, 11, 13, 14, 15, 18, 19, 21, 22, 24, 25, 26, 28, 29, 32, 33, 34, 36, 37, 38, 44, 46, 47, 49, 51, 55, 58, 63, 71, 73, 74, 86, 94, 96, 97, 100, 101, 102, 103, 107, 114, 119, 121, 124, 128, 139, 141, 146 Negative Numbers: 151, 154, 155	1, 2, 3, 5, 8, 10, 12, 31, 36, 41, 44, 52, 55, 58, 61, 64, 67, 69, 70, 72, 79, 84, 92, 96, 98, 103, 105, 106, 107, 110, 113, 114, 116, 120, 124, 141, 145, 146, 155
2. Add and subtract decimals.	3, 4, 66, 82, 92 Divide Decimals: 41, 46, 47, 76, 79, 94, 100, 120, 147 Multiply Decimals: 81, 107, 112, 116, 120, 131, 132	20, 64, 79, 80, 89, 119, 121, 129 Activity 7
3. Use estimation strategies to verify the reasonableness of calculated results.	4, 24, 25, 26, 27, 33, 38, 41, 55, 82, 92, 97, 107	3, 8, 10, 12, 55, 58, 61, 64, 67, 69, 70, 72, 84, 89, 92, 98, 103, 107, 110, 113, 114, 116, 119, 121, 124, 129, 145, 146, 155 Activity 7



**New Mexico / Excel Math Correlation**  
**Grade 5**

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4. Explain how the estimation strategy impacts the result.	4, 24, 25, 26, 27, 33, 38, 41, 55, 82, 92, 97, 107	3, 8, 10, 12, 55, 58, 61, 64, 67, 69, 70, 72, 84, 89, 92, 98, 103, 107, 110, 113, 114, 116, 119, 121, 124, 129, 145, 146, 155 Activity 7
5. Relate the basic arithmetic operations to one another (e.g., multiplication and division are inverse operations).	1, 2, 3, 11, 16, 21, 24, 26, 27, 28, 32, 33, 34, 41, 44, 46, 47, 49, 73, 74, 94, 97, 100, 101, 119, 124	64, 79
6. Simplify numerical expressions using order of operations.	14, 18, 19, *37, 96	21, 81, 110, 129, 130, 155
7. Recognize and explain the differences between exact and approximate values.	25, 37, 41, *74, 82, 92	114
<b>Mathematics Standard 2 - ALGEBRA: Students will understand algebraic concepts and applications.</b>		
<b>A. Understand patterns, relations, and functions.</b>		
1. Identify and graph ordered pairs in the first quadrant of the coordinate plane.	52, 64, 90, 95, 123, 140	
2. Describe, represent, and analyze patterns and relationships.	6, 13, 42, 55, 86, 87, 104, 108, 111, 143	7, 9, 24, 36, 45, 47, 55, 59, 61, 96, 105, 111, 131, 150
3. Identify, describe, and continue patterns presented in a variety of formats (e.g., numeric, visual, oral, written, kinesthetic, pictorial).	6, 13, 28, 42, 55, 86, 87, 104, 108, 111, 143	7, 9, 24, 36, 45, 47, 55, 59, 61, 96, 105, 111, 131, 150
4. Generate a pattern using a written description.	6, 55, *87	7, 9, 24, 36, 47, 55, 59, 61, 96, 105, 111, 131, 149, 150
<b>B. Represent and analyze mathematical situations and structures using algebraic symbols.</b>		
1. Compute the value of the expression for specific numerical values of the variable.	14, 18, 19, 37, 55, 77, 82, 108, 124, 127, 140	1, 4, 13, 18, 21, 32, 41, 81, 87
2. Use a letter to represent an unknown number.	14, 18, 19, 37, 55, 77, 82, 108, 124, 127, 140	1, 4, 13, 18, 21, 32, 41, 81, 87
3. Understand the differences between the symbols for “less than”, “less than or equal to”, “greater than”, and “greater than or equal to”.	6, 14, 18, 19, 31, 37, 55, 77, 82, 85, 105, 124, 127, 143	4, 8, 41, 81, 87, 97, 110
<b>C. Use mathematical models to represent and understand quantitative relationships.</b>		
1. Use mathematical models to represent and explain mathematical concepts and procedures.	9, 10, 11, 13, 24, 26, 27, 28, 29, 31, 33, 34, 36, 39, 44, 46, 47, 50, 51, 55, 57, 59, 77, 85, 94, 96, 97, 106	55, 61, 106, 114, 124
2. Understand and use mathematical models such as:		



**New Mexico / Excel Math Correlation  
Grade 5**

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a. Number line to model the relationship between rational numbers and rational number operations	41, *57 Negative Numbers: 89, 150, 151	
b. Pictorial representation of addition and subtraction of rational numbers with regrouping	50, 57, 77	58
c. Manipulatives or pictures to model computational procedures	1, 2, 4, 10, 11, 28, 29, 31, 36, 39, 44, 46, 47, 49, 50, 59, 68, 77, 85, 92, 102, 125	55, 58, 61, 106
d. Graphs, tables, and charts to describe data	1, 13, 51, 55, 90, 143	5
e. Diagrams or pictures to model problem situations	10, 11, 26, 31, 33, 34, 39, 44, 46, 47, 50, 51, 57, 77, 85, 102, 114	55, 58, 61, 106
3. Demonstrate how a situation can be represented in more than one way.	1, 4, 11, *13, 24, 26, 27, 29, 31, 32, 33, 34, 36, 44, 55, 59, 77, 85, 96, 143	2, 55, 61
<b>D. Analyze changes in various contexts.</b>		
1. Recognize and create patterns of change from everyday life using numerical or pictorial representations.	13, 51, 55	
2. Generalize patterns of change and recognize the same general patterns presented in different representations.	51, 55	
<b>Mathematics Standard 3 - GEOMETRY: Students will understand geometric concepts and applications.</b>		
<b>A. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.</b>		
1. Identify, describe, and classify two-dimensional shapes and three-dimensional figures by their properties.	20, 30, 35, 42, 45, 54, 56, 71, 84, 95, 134, 137, 144	15, 22, 25, 34, 40, 43, 49, 50, 56, 60, 63, 71, 73, 76, 77, 85, 88, 92, 94, 100, 104, 112, 128, 134, 136, 142 Activity 10, 11, 12
2. Recognize and describe properties of regular polygons having up to ten sides.	30, 35, 42, 45, 54, 56, 71, 95, 134	15
3. Identify faces, edges, and bases on three-dimensional objects.	20, 84, 137	*76, *92, *94, *128, *134, *142 Activity 10, 11, 12
<b>B. Specify locations and describe spatial relationships using coordinate geometry and other representational systems.</b>		
1. Recognize perpendicular and parallel lines.	30, 35	



New Mexico / *Excel Math* Correlation  
Grade 5

New Mexico Standards / Objectives	Excel Math Lesson Numbers	Stretch Lesson Numbers Activity Numbers
<b>C. Apply transformations and use symmetry to analyze mathematical situations.</b>		
1. Identify line of symmetry in simple geometric figures.	45	56 (flips)
<b>D. Use visualization, spatial reasoning, and geometric modeling to solve problems.</b>		
1. Understand and compute the perimeter of regular polygons.	54, 56, 63, 95	106, 138 Activity 8
2. Identify and explain circumference, radius, and diameter.	75, 145 Angles: 30	138
<b>Mathematics Standard 4 - MEASUREMENT:</b> Students will understand measurement systems and applications.		
<b>A. Understand measurable attributes of objects and the units, systems, and process of measurement.</b>		
1. Understand properties (e.g., length, area, weight, volume) and select the appropriate type of unit for measuring each using both U.S. customary and metric systems.	12, 17, 48, 56, 63, 72, 84, 90, 95, 114, 134, 144, 152 Surface Area: 137 Distance: 74	58, 67, 72, 99, 106, 114, 115, 122, 124, 137, 139, 140, 143, 147, 148, 152 Activity 8, 9, 13
2. Select and use appropriate units and tools to measure according to the degree of accuracy required in a particular problem-solving situation.	17, 48, 84, 95, 114, 134, 152 Angles: 30 Distance: 74	58, 67, 72, 99, 106, 114, 115, 122, 124, 137, 140, 143, 147, 148, 152 Activity 8
3. Solve problems involving linear measurement, weight, and capacity (e.g., measuring to the nearest sixteenth of an inch or nearest millimeter; using ounces, milliliters, or pounds and kilograms) to the appropriate degree of accuracy.	17, 48, 90, 114 Distance: 74	14, 58, 67, 72, 99, 106, 114, 115, 122, 124, 137, 139, 140, 143, 147, 148, 152 Activity 8
4. Perform one-step conversions within a system of measurement (e.g., inches to feet, centimeters to meters).	*17, 48, 58, 67, 114	99, 106, 122, 137, 148
<b>B. Apply appropriate techniques, tools, and formulas to determine measurements.</b>		
1. Solve measurement problems using appropriate tools involving length, perimeter, weight, capacity, time, and temperature.	7, 8, 12, 17, 48, 51, 54, 57, 63, 73, 74, 90, 95, 114	14, 54, 72, 106, 114, 115, 122, 124, 125, 137, 138, 148, 151, 152, 154 Activity 8
2. Select and use strategies to estimate measurements including length, distance, capacity, and time.	7, 8, *12, 17, 51, 57, 73, 74, 114	14, 54, 72, 99, 125, 151, 154



New Mexico / *Excel Math* Correlation  
Grade 5

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3. Apply strategies and use tools for estimating and measuring the perimeter of regular and irregular shapes.	54, 56, 63, 95 Area (irregular): 152	106, 122, 135 Activity 8 Area: 139
<b>Mathematics Standard 5 - DATA ANALYSIS AND PROBABILITY:</b>		
Students will understand how to formulate questions, analyze data, and determine probabilities.		
<b>A. Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.</b>		
1. Construct, read, analyze, and interpret tables, charts, graphs, and data plots.	5, 13, 40, 53, 55, 60, 115, 116, 143	11, 117, 126, 135
2. Construct, interpret, and analyze data from graphical representations and draw simple conclusions using bar graphs, line graphs, circle graphs, frequency tables, and Venn diagrams.	5, 13, 40, 53, 55, 115, 116, 143	11, 117, 126, 135
3. Display, analyze, compare, and interpret different data sets, including data sets of different sizes.	*5, *40, 53, 115, 116, 143	11, 117, 126, 135
4. Organize and display single-variable data in appropriate graphs and representations.	*13, 40, 116, 143	11, 117, 126, 135
5. Organize, read, and display numerical (quantitative) and non-numerical (qualitative) data in a clear, organized, and accurate manner including correct titles, labels, and intervals or categories including:		
a. frequency tables	*55	
b. stem and leaf plots	115	
c. bar, line, and circle graphs	*5, 40, 116	
d. Venn diagrams	53	117, 126, 135
e. pictorial displays	*5, 10	118
f. charts and tables	13, 40, 55, 143	11, 118
6. Formulate questions and identify data to be collected to correctly answer a question.	10, 115	11 Create-a-Problems: (back of each test)
<b>B. Select and use appropriate statistical methods to analyze data.</b>		
1. Organize and display single-variable data in appropriate graphs and representations and determine which types of graphs are appropriate for various data sets.	*13, 40, 116, 143	11, 117, 123, 126, 135



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2. Use fractions and percentages to compare data sets of different sizes.	60, 116	
3. Correctly rank the values of a numerical data set containing simple fractions and decimals, identify maximum and minimum data values, and calculate the range for a data set.	*60, 115, *116 Averages: 102, 103, 135	Averages: 130
<b>C. Develop and evaluate inferences and predictions that are based on data.</b>		
1. Make and justify valid inferences, predictions, and arguments based on statistical analysis.	5, 13, *40, 53, 55, 60, 115	11, 65, 117
2. Compare a given prediction with the results of an investigation.	*60, *115	Deductive Reasoning: 6, 23, 26, 27, 28, 30, 33, 35, 38, 48, 57, 68, 74, 75, 77, 86, 90, 101, 108, 114, 115, 133, 153
3. Use counting strategies to determine all the possible outcomes of a particular familiar event.	40, 58, 60	65, 123 Activity: 6
4. Find all possible outcome sets involving four or more sets of objects.	40, 53, 58, 60	65, 123 Activity 6
5. Evaluate the reasonableness of inferences that are based on data in the context of the original solution.	5, 13, *40, 53, 55, 60, 115	11, 65, 117
6. Identify the method used to make an inference and/or a prediction on a given data set and solve similar problems.	5, 13, *40, 53, 55, 60, 115	11, 65, 117
7. Determine the accuracy of a prediction or an inference based on the accuracy of the data in a given data set.	5, 13, *40, 53, 55, 60, 115	11, 65, 117
8. List all possible outcomes of simple events.	40, 58, 60	65, 123 Activity: 6 Order: 16, 37, 39, 42, 46, 51, 53, 62, 83, Activity 1, 2, 3
<b>D. Understand and apply basic concepts of probability.</b>		
1. Determine probabilities through experiments and/or simulations and compare the results with mathematical expressions.	60 Stories: 117	Activity 6 Possibilities: 65, 123, Activity 3, 4



New Mexico / *Excel Math* Correlation  
Grade 5

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2. Make predictions from the results of student-generated experiments of single events.	60 Stories: 117	Activity: 6
3. Identify simple experiments where the probabilities of all outcomes are equal.	60	Activity 6
4. Describe and predict the results of a probability experiment.	60 Stories: 117	Activity 6 Possibilities: 65, 123, Activity 3, 4
5. Use fractions to describe the results of an experiment.	60 Stories: 117, 130, 135, 142	Activity 6
6. Use probability to generalize from a simple pattern or set of examples and justify why the generalization is reasonable.	60, 117	Activity 6

\* Gives opportunity to teach specific Standard