

Honors Math 3

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Unit 2 – Inverses & Exponential Functions

(September is also National Mushroom, Potato, Honey, Italian Cheese ,
 & Self Improvement Month)

Day	Date	Topic	Homework
1	9/16 Mon (Due Dates are on the Website.)	L2 & L6 Skid Marks & Regression Activity (September 16 th – National Cinnamon Raisin Bread & Play Dough Day)	L2 All, L6 RSG Even, & Graded HW # 3 = Skid Mark Lab due Sept 18 th
2	9/17 Tues	L3 - Investigating Inverse Functions (September 17 th – National Apple Dumpling Day)	L3 RSG Odd & Pokemon Project
3	9/18 Wed	L1 & L6 Number Tricks & Inverse Functions (September 18 th – National Cheeseburger Day)	L1 SG Odd, L6 Set, & L6 Go Even
4	9/19 Thurs	L4 - Cataloging Logarithms & Exponential Rules (September 19 th – National Butterscotch Pudding Day)	L4 # 9 - 12, L4 Ready, Set # 10, 12, 17 - 21
5	9/20 Fri	Quiz (September 20 th – National String Cheese, Pepperoni Pizza, Fried Rice, & Punch Day)	 L5 # 1 - 6, Set # 13

Assignments are due the day before or the morning of a pre-planned Absence / Field Trip. Anyone checking into school after math class will need to turn in assignments by the end of the school day. Thank You!



(October is National



Apple,



American Cheese,



Chili,





Eat Better – Eat Together,



Popcorn Popping, &



Seafood Month)

4	9/23 Mon	<p>L7/L9 Change of Base, Logarithmic Graphs, & Types of Exp/Log Equations</p>  <p>(September 23rd – National American Pot Pie, Snack on a Stick , & Autumnal Equinox Day)</p> 	<p>Exp/Log Graphing Foldable, Smile at 3 People, Project, & (Cookie, Napkin, & Juice Box/Pouch = Fri)</p>
5	9/24 Tues	<p>L8 Solving Logarithmic Equations & Logarithmic Rules</p>  <p>(September 24th – National Cherries Jubilee & Punctuation Day)</p>	<p>L8 Set # 15 - 21 Odd and L8 Go # 26, 29</p> 
6	9/25 Wed	<p>L7, L10, & L11 Solving Exponential Equations</p>  <p>(September 25th – National Lobster & Math Storytelling Day)</p> 	<p>Study, L7 Ready # 1 - 6, and L10 Set # 9 - 15 Odd</p>
7	9/26 Thurs	<p>Quiz</p>   <p>(September 26th – National Pancake & Dumpling Day)</p>	<p>Wed's HW & Give Yourself a \$1 Treat</p>
8	9/27 Fri	<p>L7 - L9 Exponential & Logarithmic Word Problems</p>  <p>(September 27th – National Chocolate Milk, Scarf, & Corned Beef Hash Day)</p>	<p>L9 # 1-4 & SG # 17 - 21</p> 
<p>(September 28th – National NC & Strawberry Crème Pie Day)</p>  			



4	9/30 Mon	Workday <i>(September 30th – National Chewing Gum Day)</i>	
5	10/1 Tues	L8/L10 Compound Interest <i>(October 1st – National Homemade Cookie, Eat Fruit at Work, & Hair Day)</i> 	L8 Set # 14 - 22 Even, LO # 17 - 24
6	10/2 Wed	L5 - L6 Factoring By Grouping & Quadratic Formula <i>(October 2nd – National Fried Scallops & Pumpkin Seed Day)</i> 	L5 Go # 24 - 27, L6 Go Odd, WS S & P Odd, WS F by G
7	10/3 Thurs	Review <i>(October 3rd – National Techies - (Consider Technology Careers) Day)</i>	Study & Project
8	10/4 Fri	Unit Test 2 <i>(October 4th – National Taco Day)</i>	Project & Schoolnet # 2
<i>(October 5th – National Do Something Nice Day)</i>			

The Eight Mathematical Practices		
1	I can solve problems without giving up.	
2	I can think about numbers in many ways.	
3	I can explain my thinking and try to understand others.	
4	I can show my work in many ways.	
5	I can use math tools and tell why I chose them.	
6	I can work carefully and check my work.	
7	I can use what I know to solve new problems.	
8	I can solve problems by looking for rules and patterns.	

Unit 2 –Honors Math 3 – Standards “Inverse & Exponential Functions”

NC.M3.A-SSE.1a	a. Identify and interpret parts of a piecewise, absolute value, polynomial, exponential and rational expressions including terms, factors, coefficients, and exponents.
NC.M3.A-SSE.3c	c. Write an equivalent form of an exponential expression by using the properties of exponents to transform expressions to reveal rates based on different intervals of the domain.
NC.M3.A-CED.1	Create equations and inequalities in one variable that represents absolute value, polynomial, exponential, and rational relationships and use them to solve problems algebraically and graphically.
NC.M3.A-CED.2	Create and graph equations in two variables to represent absolute value, polynomial, exponential and rational relationships between quantities.
NC.M3.F-IF.7	Analyze piecewise, absolute value, polynomials, exponential, rational, and trigonometric functions (sine and cosine) using different representations to show key features of the graph, by hand in simple cases and using technology for more complicated cases, including: domain and range; intercepts; intervals where the function is increasing, decreasing, positive, or negative; rate of change; relative maximums and minimums; symmetries; end behavior; period; and discontinuities.
NC.M3.F-LE.4	Use logarithms to express the solution to $ab^{cx} = d$ where a, b, c, and d are numbers and evaluate the logarithm using technology.
NC.M3.F-BF.1a	Write a function that describes a relationship between two quantities. a. Build polynomial and exponential functions with real solution(s) given a graph, a description of a relationship, or ordered pairs (include reading these from a table).
NC.M3.F.BF.1b	b. Build a new function, in terms of a context, by combining standard function types using arithmetic operations.
NC.M3.F-BF.4a	Find an inverse function. a. Understand the inverse relationship between exponential and logarithmic, quadratic and square root, and linear to linear functions and use this relationship to solve problems using tables, graphs, and equations.
NC.M3-F.BF.4b	b. Determine if an inverse function exists by analyzing tables, graphs, and equations.
NC.M3.F-BF.4c	c. If an inverse function exists for a linear, quadratic and/or exponential function, f , then represent the inverse function, f^{-1} , with a table, graph, or equation and use it to solve problems in terms of a context.