Honors Math 3
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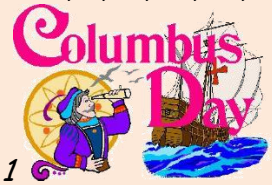
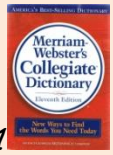
https://sites.google.com/site/blackwellsbutterflyworld/home

Unit 3 – Polynomial Functions

Day	Date	Topic	Homework
1	10/7 **Mon**	L1 Patterns *(October 7th – National Chocolate Covered Pretzel & Frappe Day)* 	L1 Set # 10 – 15 & WS Recursive & Explicit 
2	10/8 **Tues**	L2 + - * Polynomials & Pascal's Triangle *(October 8th – National Pierogi Day)*	*L2 # 1 – 7, L2 SG # 15 – 20, WS Pascal, & WS On-line Patterns* 
3	10/9 **Wed**	*Workday* *(October 9th – National Moldy Cheese Day)* 	
3	10/10 **Thurs** ***(Due Dates are on the Website.)***	L3 Pascal's Triangle & Long Divisio n*(October 10th – National Angel Food Cake & Cake Decorating Day)*	*L3 # 1 – 5abcd, (5) Polynomial Cube Problems = Google Classroom due Mon, On – line Pattern Video Clip, & Graded HW # 4 = Birthday # 1* 
4	10/11 **Fri**	**Quiz** *(October 11th – National Sausage Pizza Day)* *(October 12th – National Gumbo Day)* 	*Thurs' HW* 

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)*	
6	10/14 **Mon** ***(Due Dates are on the Website.)***	L3 - L4 Long Division & Polynomial Roots *(October 14th – National Dessert & Columbus Day)* 	*L4 # 1 – 9,* *L4 RS # 3, 4, 11, 12, 16, &*  *Go # 1*
7	10/15 **Tues**	L5 Factoring Polynomials *(October 15th – National Cheese Curd Day)* 	*Study, L5 # 1 – 4, L5 RSG, Sheldon's Spot Data, & Birthday – Part 1*
8	10/16 **Wed**	L6 End Behavior, Even, & Odd Functions *(October 16th – National Dictionary & Boss Day)* 	*L6 Part II # 1, 2, 4, 12, 13, 14,*  *L6 RSG Even, & 21*
9	10/17 **Thurs**	L7 Polynomial Review *(October 17th – National Pasta Day)*	*On-line CW # 1, 2, 3, 4 = Take Notes, & Birthday –*  *Part 2 = GH # 4*
10	10/18 **Fri**	**Quiz** *(October 18th – National Chocolate Cupcake Day)*  *(October 19th – National Sweetness & Seafood Bisque Day)*	*Thurs' HW &*  *Birthday – Part 2*

		Applejack  , Spinach Lovers  , Cookbook  , Pear  , Pineapple  , Rhubarb  , & Protect Your Hearing  *Month)*	
11	10/21 **Mon**	Midterm Project Plan Day *(October 21st – National Pumpkin Cheesecake Day)* 	
12	10/22 **Tues**	3.10 Polynomial Puzzles & Review *(October 22nd – National Nut Day)*	
13	10/23 **Wed**	UT 3 Polynomial Review HW – On-line Ted Talk – Poly Graphs, UT 4 Review Check List, & Give Yourself a $1 Treat *(October 23rd – National Boston Cream Pie & iPod Day)* 	Midterm Golfing Review Game HW – Study &, On – line Midterm Topics & Sample Problems
14	10/24 **Thurs**	**Unit Test 3**  *(October 24th – National Bologna Day)* HW – Study, On – line Midterm Topics, & Sample Problems	
15	10/25 **Fri**	HW – 4.7 Ready & 4.1 # 1 - 5 & Birthday # 3 = Graded HW # 5 *(October 25th – National Greasy Food & Breadsticks Day)* 	HW – On-line Ted Talk – Poly Graphs, Birthday # 3 = Graded HW # 5, & Give Yourself a $1 Treat
16	10/28 **Mon or** 10/29 **Tues**	**Midterm Exam**  *(TBD)* *(October 28th – National Chocolate Day)*	*(TBD)*

Unit 3 –Honors Math 3 – Standards "Polynomial Functions"

NC.M3.A-SSE.1ab	Interpret expressions that represent a quantity in terms of its context. a. Identify and interpret parts of a piecewise, absolute value, polynomial, exponential and rational expressions including terms, factors, coefficients, and exponents. b. Interpret expressions composed of multiple parts by viewing one or more of their parts as a single entity to give meaning in terms of a context.
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.4 NC.M3.F-IF.7	Interpret key features of graphs, tables, and verbal descriptions in context to describe functions that arise in applications relating two quantities to include periodicity and discontinuities. 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.N-CN.9	Use the Fundamental Theorem of Algebra to determine the number and potential types of solutions for polynomial functions.
NC.M3.A-APR.2 NC.M3.A-APR.3 NC.M3.A-APR.6	Understand and apply the Remainder Theorem. Understand the relationship among factors of a polynomial expression, the solutions of a polynomial equation and the zeros of a polynomial function. Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)\,b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$.

NC.M3.F-BF.1 NC.M3.F-BF.1a NC.M3.F-BF.3	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). Extend an understanding of the effects on the graphical and tabular representations of a function when replacing f(x) with $k \cdot f(x)$, $f(x) + k$, $f(x + k)$ to include $f(k \cdot x)$ for specific values of k (both positive and negative)
NC.M3.F-LE.3	Compare the end behavior of functions using their rates of change over intervals of the same length to show that a quantity increasing exponentially eventually exceeds a quantity increasing as a polynomial function.

Unit 3 –Honors Math 3 – Formative Assessment Chart "Polynomial Functions"

Keep track of your concept progress by checking
the appropriate box as we go through the unit

	I Can…		***Know a little*** 	***Need Practice*** 	***I Got it!*** 
1	Identify a cubic function from the rate of change.				
2	Describe the features of $(x) = x3$.				
3	Graph cubic functions in the form: $f(x) = a(x - h)3 + k$				
4	Describe the similarities and differences between cubic functions and quadratic functions.				
5	Add polynomials both algebraically and graphically.				
6	Subtract polynomials both algebraically and graphically.				
7	Multiply polynomials using the distributive property.				
8	Use Pascal's Triangle to raise a binomial to a power.				
9	Use the Fundamental Theorem of Algebra to determine how many roots a polynomial has.				
10	Write a polynomial in factored form, given the roots of the polynomial.				
11	Find the other roots of a polynomial given a factor or root.				
12	Describe pairs of irrational or imaginary roots of polynomials.				
	Determine the end behavior of a polynomial of a given degree.				