Name_____

Honors Math 2 Unit 3: Modeling with Exponents

Unit 3: Modeling with Exponential Functions bridges the work from the exponential unit in CCM1 and the logarithmic unit in CCM3. This unit continues to work on properties of exponents to include rational exponents and continues transformations of exponential graphs to include replacing f(x) by f(x) + k, k f(x), f(kx), and f(x+k) for specific values of k. This unit will also introduce the concept of inverse functions and common logarithms.

In this unit, students will . . .

- Extend the properties of exponents to rational exponents.
- Use common logs to solve exponential equations.
- Interpret functions that arise in applications in terms of the context for exponential functions.
- Graph exponential and logarithmic functions by their key features.
- Write expressions in equivalent forms to solve problems with exponentials and common logarithms.
- Graph exponential functions, replace f(x) by f(x) + k, k f(x), f(kx), and f(x+k) for specific values of k
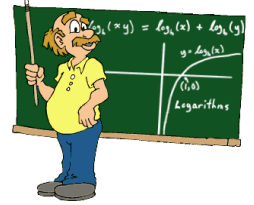
Date	Day of Unit	Lesson	Assignment
Friday 10/7	1	Modeling with Exponential Functions: Equivalent Forms of Exponentials and Simplifying Radicals	Packet p. 1 – 2
Mon 10/10	2	Modeling with Exponential Functions: Basic Radical Operations Modeling with Exponential Functions: Rational Exponents and Radicals	Packet p. 3 Packet p. 4 Evens
Tues 10/11	3	Solving Simple Equations with Rational Exponents and Radicals	Packet p. 5 and 6 evens Finish Notes day 3
Wed 10/12	4	Modeling with Exponential Functions: Solving Equations with Rational Exponents and Radicals **Pre-ACT administration (sophomores)**	Finish Packet p. 3 (Bottom Table) Packet p. 7 Finish Notes day 4
Thurs 10/13	5	Modeling with Exponential Functions: MORE with Solving Equations with Rational Exponents and Radicals	Packet p. 8 - 9 #1 - 12, 25 - 34
Fri 10/14	6	**Unit 3 Quiz 1 (covers days 1 – 3)**	Packet p. 10 - 11 odds AND #4, 12
Mon 10/17	7	Exponential Models: Exponential Growth and Decay	Packet p. 12 - 13 **Print Unit 3 Packet and Notes Days 8 – 12**
Tues 10/18	8	Exponential Models: Point-ratio Form	Packet p. 14
Wed 10/19	9	Transformations of Graphs, Introduce kf(x) and f(kx) Inverses of Functions: Switch x and y, solve for y, reflect over y = x **PSAT administration (9-11 graders who registered)**	Packet p. 15 – 16
Thurs 10/20	10	Finish Inverses of Functions Inverses of Functions: (logs and exponentials)	Packet p. 19 - 21 EVENS and P. 24-27 STARRED PROBLEMS
Fri 10/21	11	**Unit 3 Quiz 2** **Early Release day**	Packet p. 17 - 18 and Packet p. 19 - 21 ODD
Mon 10/24	12	Common Logs: Introduction, solving equations, word problem	Packet p. 22 - 23 and Notes for day 12
Tues 10/25	13	Review	Packet p. 24 - 27 circled problems
Wed 10/26	14	**Unit 3 Test** **(Cumulative over all of Unit 3)**	Packet p. 28 - 29 **Print Midterm Review Packet**
Thurs 10/27	15	ODM Review	Print and Complete Midterm Review Packet
Fri 10/28	16	**ODM Midterm Test** **Pep rally schedule**	**Print Unit 4 Packet and Notes**

Homework Grade: