

## Honors Math 2 Unit 2: Modeling with Quadratics

Unit 2: Modeling with Quadratic Functions builds on the work from the quadratic unit in M1. In M1, students used technology to explore quadratic functions and their graphs and how to use them to analyze and solve problems. In M2, students will move away from reliance on technology and start to build an understanding of the underlying mathematics of quadratic functions. M3 will continue this through the development of formal proof concepts and deriving many of the concepts learned in this unit.

In this unit, students will . . .

- Solve quadratic functions by factoring.
- Use the quadratic formula to solve quadratic functions.
- Calculate and use the discriminant to characterize the solutions of a quadratic.
- Understand and changes in the constants of a quadratic affect its graph.
- Solve systems of equations involving quadratics.
- Solve inequalities involving quadratics.

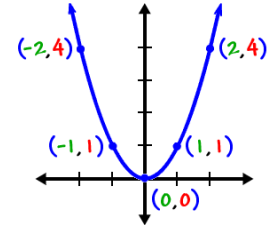


Image from <http://coolmath.com/algebra/11-graphing-quadratics-parabolas/03-graphing-parabolas-part-2-01.htm>

Date	Day of Unit	Lesson	Assignment
Tues 9/20	1	Factoring Review and Solving for Zeros Algebraically	Packet p. 1 and 2 #1-9, 19-24 Complete Notes p. 5
Wed 9/21	2	Factoring Review and Solving for Zeros Algebraically	Packet p. 3 #2-18 even, 19-24 all Complete Notes p. 9
Thurs 9/22	3	Finding Extrema & Graphing Quadratics	Packet p. 4 Study for Quiz #1
Fri 9/23	4	Designing Parabolas <b>Quiz #1</b>	Notes Angry Birds Discovery p. 16-18 Packet p. 5 and Start Packet p. 6
Mon 9/26	5	Characteristics of Quadratic Functions	Packet p. 7 Finish Packet p. 6
Tues 9/27	6	Characteristics of Quadratic Functions Even and Odd Functions	Packet p. 8 - 9 <b>&amp; Print Packet &amp; Notes Part 2</b>
Wed 9/28	7	The Quadratic Formula and the Discriminant	Packet p. 10-12 ODDS only And Complete all of the "First" problems
Thurs 9/29	8	<b>Quiz #2</b>	Packet p. 10-12 EVENS only
Fri 9/30	9	EARLY RELEASE Warm-Up of Quadratics with Shading (1 quadratic only) Fred Functions (Transformations of Functions)	Packet p. 13-14 AND Finish Fred Notes from today
Mon 10/3	10	Warm-Up of Quadratic Systems Algebraically by Hand  More with Fred Functions	<b>Packet p. 15-16</b> AND Finish Fred Notes from today
Tues 10/4	11	Quadratic Inequalities and Graphing Quadratic Systems	Packet Page 17 Odds and #2, 8 Packet p. 18 & 19 ALL Check Tonight's HW on Bboard
Wed 10/5	12	Wrap-Up and Review	Packet p. 20-24
Thurs 10/6	13	<b>Test</b>	Unit 2 Packet p. 25 all & p. 26 #1-15 all, #17-35 odds Print Unit 3 Packet, Notes & Cover

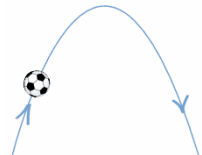


Image from  
<http://www.mathsisfun.com/geometry/parabola.html>

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Homework Grade:

