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Home Instruction Packet for Algebra II CP / Algebra II Standard

Name of Teacher and Class: K. Padilla / Algebra II CP / Algebra II Standard

In this packet are materials and directions for all Algebra II CP and Standard students.
This work will be collected and will be graded. The material will count towards 10% of their marking period grade. All assignments will be collected by submission through www.bigideasmath.com following the schedule below. In the event that internet access is compromised, paper copies of the weekly assignments will be available on the school website at www.rphslibrary.org/home-instruction or can be physically picked up at the high school. These paper assignments will have the same deadlines and will be collected when in-person classes resume.

I am available to support you during the hours 7:50am-2:50 pm to answer any of your questions. I will be responding to your emails within the hour.
You contact me at: Kpadilla@rpsd.org

Lesson: Title, Objective, What doing and how assessed.	Assignment Directions and how collected. Definitive due dates…
Week 1: Chapter 1 & 2 Review – Linear Functions and Quadratic Functions	
Lesson 1 – BigIdeas - 1.4 Solving with Linear Functions	Lesson 1 – Due 3/17 – Submit online at bigideasmath.com
Lesson 2 – BigIdeas - 2.2 Characteristics of Quadratic Functions	Lesson 2 – Due 3/19 – Submit online at bigideasmath.com
Week 2: Chapter 3 Review - Quadratic Equations and Complex Numbers	
Lesson 1 – BigIdeas - 3.1 & 3.2 Complex numbers and solving quadratic equations	Lesson 1 – Due 3/24 – Submit online at bigideasmath.com
Lesson 2 – BigIdeas - 3.3 & 3.4 Completing the square and using the quadratic formula	Lesson 2 – Due 3/26 – Submit online at bigideasmath.com
Lesson 3 – BigIdeas - 3.5 & 3.6 Solving nonlinear systems and quadratic inequalities	Lesson 3 – Due 3/27 – Submit online at bigideasmath.com
Week 3- Chapter 4 Review – Polynomial Functions	
Lesson 1 – BigIdeas - 4.2 & 4.3 Adding, subtracting, & multiplying polynomials and dividing polynomials	Lesson 1 – Due 3/31 – Submit online at bigideasmath.com
Lesson 2 – BigIdeas – 4.4 Factoring Polynomials	Lesson 2 – Due 4/2– Submit online at bigideasmath.com
Lesson 3 – BigIdeas – 4.5 Solving polynomial equations	Lesson 3 – Due 4/3– Submit online at bigideasmath.com

Algebra 2 Name_____

Chapter 1 Review

Date_____ Period____

1.4 Solve each system.

1) $-6x + 4y - 6z = -8$
$5x - 4y - z = -22$
$x - 3y - 6z = -29$

2) $6x - 2y + z = 23$
$5x + 6y - 4z = 5$
$-3x + 3y - z = -19$

3) $-2y - z = -4$
$4x + 2y + 2z = 6$
$4x + z = 2$

4) $z = -3x + 3y + 4$
$2y - z = 6$
$2x - 4y + 4z = -8$

5) $-x - z = 2$
$-6x + y - 5z = -26$
$2x + y + 3z = 6$

6) $-3x + 6y = 30$
$x - 2y + 6z = -16$
$x - 6y - 5z = -21$

Algebra 2 Name_____

Chapter 2 Review

Date_____ Period____

Use the information provided to write the vertex form equation of each parabola.

1) Vertex: $(5, -9)$, Point: $(3, -5)$

2) Vertex: $(4, 4)$, Point: $(2, -16)$

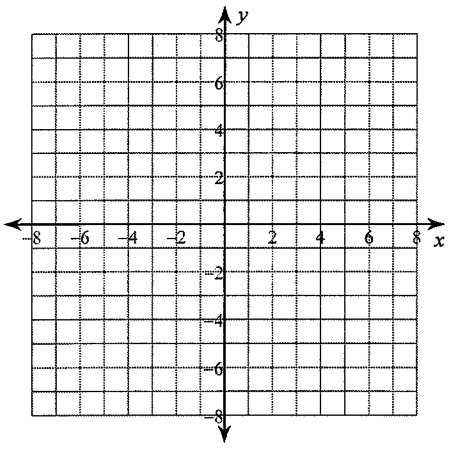
Use the information provided to write the intercept form equation of each parabola.

3) Intercepts: 5 and 10, Point: $(6, -12)$

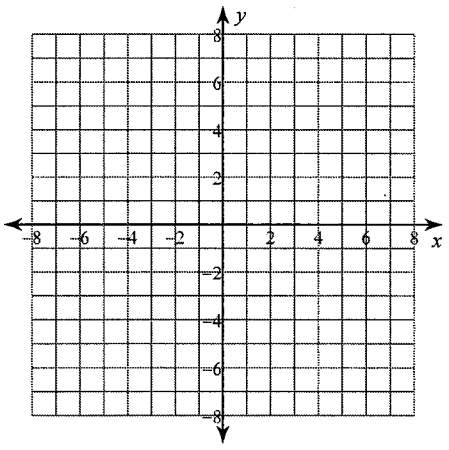
4) Intercepts: 9 and 6 , Point: $(10, -16)$

Identify the vertex, axis of symmetry, and min/max value of each. Then sketch the graph.

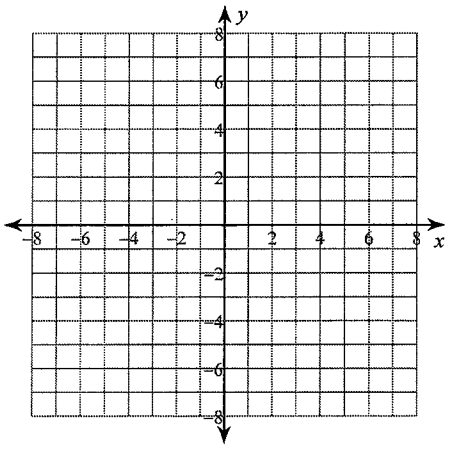
5) $y = -2x^2 + 16x - 36$



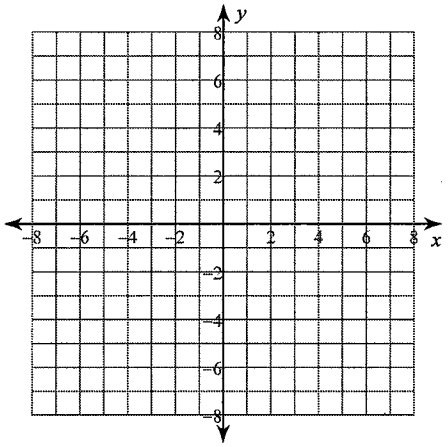
6) $y = x^2 + 12x + 31$



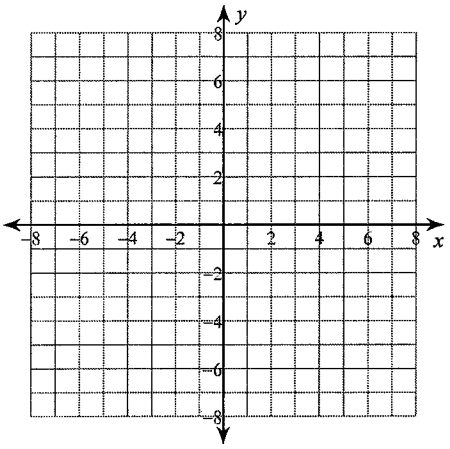
7) $y = -x^2 - 1$



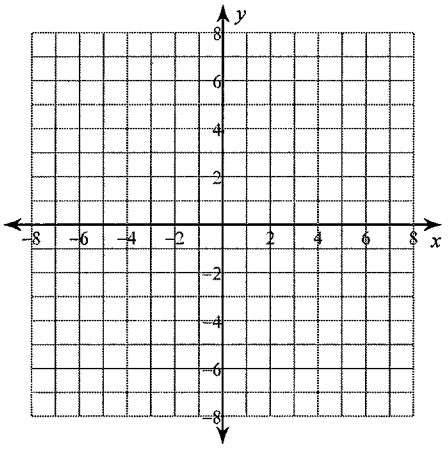
8) $y = -(x+3)^2 - 1$



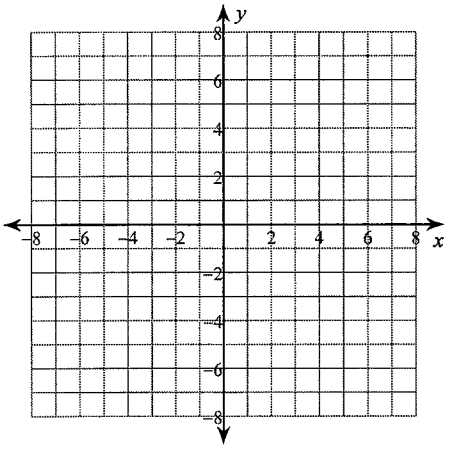
9) $y = -x(x+4)$



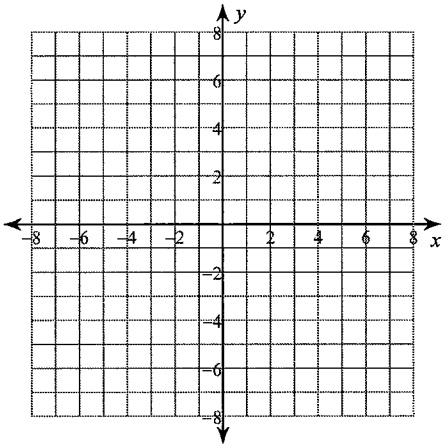
10) $y = -(x+4)(x+2)$



11) $y = -\frac{1}{4}(x-4)(x+3)$



12) $y = -(x-7)(x-5)$



Algebra 2 Name_____

Chapter 3 Review

Date_____ Period____

3.1 Solve each equation by taking square roots.

1) $9k^2 + 2 = 767$

2) $64n^2 + 4 = 13$

3) $16a^2 + 9 = 58$

4) $8b^2 + 2 = 186$

3.3 Solve each equation by completing the square.

5) $x^2 + 16x + 36 = 8$

6) $x^2 + 8x - 15 = 5$

7) $n^2 - 2n - 84 = -4$

8) $x^2 - 18x + 65 = -7$

3.4 Solve each equation with the quadratic formula.

9) $5k^2 + 8k = 36$

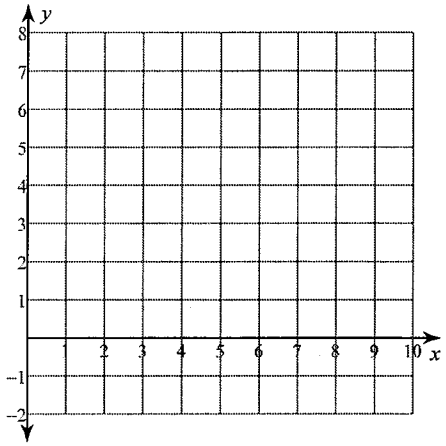
10) $4r^2 - 72 = -2r$

11) $3x^2 = 76 - 7x$

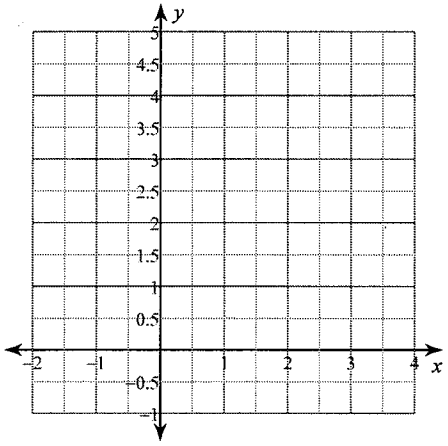
12) $5x^2 + 9x = 126$

3.6 Sketch the graph of each inequality.

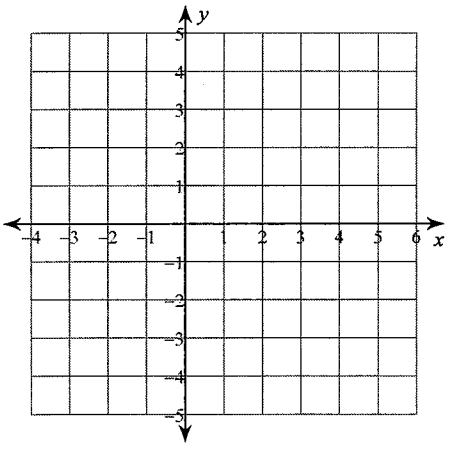
13) $y < 2x^2 - 8x + 7$



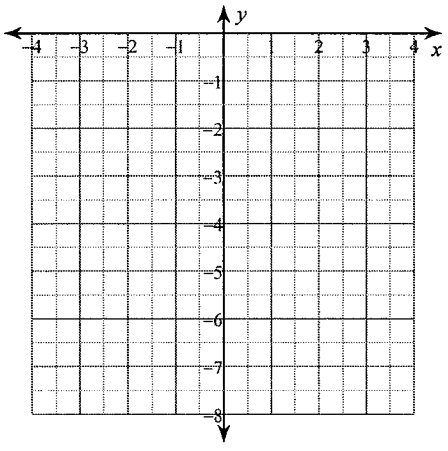
14) $y > -(x-1)^2 + 4$



15) $y \leq 2x^2 + 8x + 4$



16) $y < -(x+1)^2 - 3$



Algebra 2 Name_____

Chapter 4 Review

Date_____ Period____

4.2 Simplify each expression.

1) $(2v^4 + 5v - 2v^3) - (7v + v^3 - v^4)$

2) $(6 + 6m - 6m^3) - (m^3 - 8m - 3)$

3) $(6n - 8n^2 + 2n^3) + (4n^4 - 6n^3 + 2n)$

4) $(2b^3 - 6 - 3b^4) - (5b^3 - 7 + 2b^4)$

4.2 Find each product.

5) $(3r - 4)(3r - 3)$

6) $(3v + 5)(6v - 5)$

7) $(6x + 3)(x^2 + 2x - 7)$

8) $(3k + 6)(k^2 + 3k - 4)$

4.3 Divide.

9) $(7x^4 + 33x^3 - 50x^2 + 25x + 2) \div (x + 6)$

10) $(9x^3 - 64x^2 + 51x + 54) \div (x - 6)$

11) $(r^3 + r^2 - 41r) \div (r - 6)$

12) $(r^4 - 17r^3 + 76r^2 - 69r + 90) \div (r - 10)$

13) $(8x^3 + 16x^2 - 1) \div (x + 2)$

14) $(-4b^4 + 28b^3 + 23b^2 + 76b - 32) \div (b - 8)$

4.4 Factor the common monomial first, then factor each completely.

15) $2x^2 - 10x + 12$

16) $20x^4 + 128x^3 - 84x^2$

17) $45p^3 + 15p^2 - 280p$

18) $2r^3 - 6r^2 - 108r$

19) $10x^3 + 56x^2 + 64x$

20) $24m^2 - 36m$

4.4 Use factoring by grouping, and factor each completely.

21) $40k^3 - 56k^2 + 15k - 21$

22) $10p^3 - 2p^2 + 5p - 1$