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Home Instruction Packet for Pre-Calculus Standard

Mrs. Clausi

In this packet are materials and directions…..

Your **answers** must be emailed to me **on a weekly basis**. See schedule below.
All of your **work must be shown in your packet**.
I will be collecting your packet once school has resumed. This work **will be graded** and counted towards your marking period grade.

I am available to support you during the hours 7:50 am-2:50 pm to answer any of your questions. I will be responding to your emails within the hour.

You contact me at: jclausi@rpsd.org or through Remind

Lesson: Pre-Calculus Review Students will complete a review packet of Algebra 2 concepts, showing all work, and submitting final answers by email weekly.	**Directions for packet:** Answer all questions. Show all work in your packet. **Directions for emailing answers:** 1. Email me your answers for the week according to the schedule below. Take note of due dates and due times. 2. You may type out your final answers in the email OR email me a picture of the page(s) with your work and answers.
Week 1- Lesson 1: Lesson 2:	**Pages 2-3 Due: Friday, March 20th by 3:00 pm** - Complete problems and submit answers to: Simplifying Polynomial Expressions (#1-10) and Solving Equations (#1-10) - Complete problems and submit answers to: Rearranging Formulas (#1-6) and Simplify Exponents (#1-15)
Week 2- Lesson 1: Lesson 2:	**Pages 4-5 Due: Friday, March 27th by 3:00 pm** - Complete problems and submit answers to: Binomial Multiplication (#1-10) and Factoring (#1-10) - Complete problems and submit answers to: Radicals (#1-10) and Finding the Slope of a Line (#1-6)
Week 3- Lesson 1: Lesson 2:	**Pages 6-7 Due Friday, April 3rd by 3:00 pm** -Complete problems and submit answers to: Graphing Lines (#1-6) -Complete problems and submit answers to: Graphing and solving Simultaneous Equations (#1-5)

Pre-Calc

3 pages per week

Check email + remind

Simplifying Polynomial Expressions

1. $8x - 9y + 16x + 12y$
2. $14y + 22 - 15y^2 + 23y$
3. $5n - (3 - 4n)$
4. $-2(11b - 3)$
5. $10q(16x + 11)$
6. $-(5x - 6)$
7. $3(18z - 4w) + 2(10z - 6w)$
8. $(8c + 3) + 12(4c - 10)$
9. $9(6x - 2) - 3(9x^2 - 3)$
10. $-(y - x) + 6(5x + 7)$

Solving Equations

Solve each equation. You must show all work.

1. $5x - 2 = 33$
2. $140 = 4x + 36$
3. $8(3x - 4) = 196$
4. $45x - 720 + 15x = 60$
5. $132 = 4(12x - 9)$
6. $198 = 154 + 7x - 68$
7. $-131 = -5(3x - 8) + 6x$
8. $-7x - 10 = 18 + 3x$
9. $12x + 8 - 15 = -2(3x - 82)$
10. $-(12x - 6) = 12x + 6$

Rearranging Formulas

Solve each equation for the specified variable.

1. $Y + V = W$, for V

2. $9wr = 81$, for w

3. $2d - 3f = 9$, for f

4. $dx + t = 10$, for x

5. $P = (g - 9)180$, for g

6. $4x + y - 5h = 10y + u$, for x

Simplify Exponents

Simplify each expression.

1. $(c^5)(c)(c^2)$

2. $\frac{m^{15}}{m^3}$

3. $(k^4)^5$

4. d^0

5. $(p^4q^2)(p^7q^5)$

6. $\frac{45y^3z^{10}}{5y^3z}$

7. $(-t^7)^3$

8. $3f^3g^0$

9. $(4h^5k^3)(15k^2h^3)$

10. $\frac{12a^4b^6}{36ab^2c}$

11. $(3m^2n)^4$

12. $(12x^2y)^0$

13. $(-5a^2b)(2ab^2c)(-3b)$

14. $4x(2x^2y)^0$

15. $(3x^4y)(2y^2)^3$

Binomial Multiplication

Multiply. Write your answer in simplest form.

1. $(x+10)(x-9)$
2. $(x+7)(x-12)$
3. $(x-10)(x-2)$
4. $(x-8)(x+81)$
5. $(2x-1)(4x+3)$
6. $(-2x+10)(-9x+5)$
7. $(-3x-4)(2x+4)$
8. $(x+10)^2$
9. $(-x+5)^2$
10. $(2x-3)^2$

Factoring

Factor each expression.

1. $3x^2+6x$
2. $4a^2b^2-16ab^3+8ab^2c$
3. x^2-25
4. $n^2+8n+15$
5. $g^2-9g+20$
6. $d^2+3d-28$
7. $z^2-7z-30$
8. $m^2+18m+81$
9. $4y^3-36y$
10. $5k^2+30k-135$

Radicals

Simplify each radical.

1. $\sqrt{121}$
2. $\sqrt{90}$
3. $\sqrt{175}$
4. $\sqrt{288}$
5. $\sqrt{486}$
6. $2\sqrt{16}$
7. $6\sqrt{500}$
8. $3\sqrt{147}$
9. $8\sqrt{475}$
10. $\sqrt{\frac{125}{9}}$

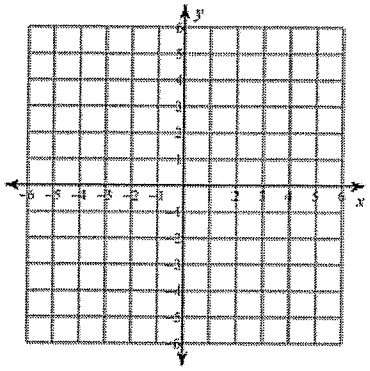
Finding the Slope of a line

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

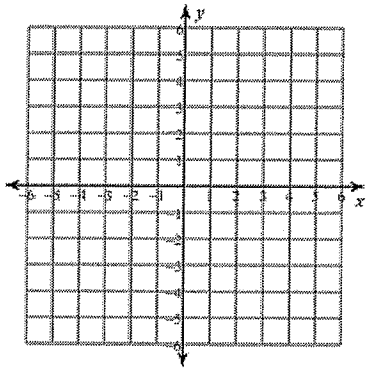
1. (-1, 4) and (1, -2)
2. (3, 5) and (-3, 1)
3. (1, -3) and (-1, -2)
4. (2, -4) and (6, -4)
5. (2, 1) and (-2, -3)
6. (5, -2) and (5, 7)

Graphing Lines by either method *Slope Intercept, Intercepts or Rearranging.*

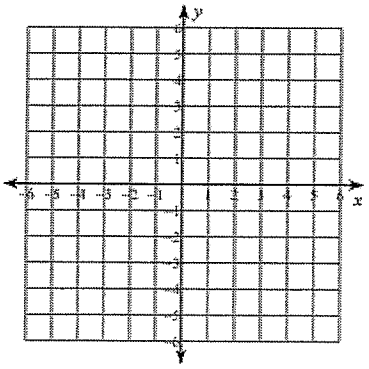
1) $y = \frac{7}{2}x - 2$



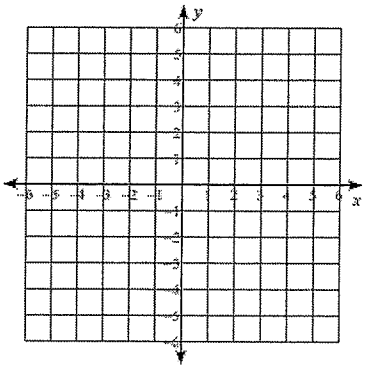
2) $y = -6x + 3$



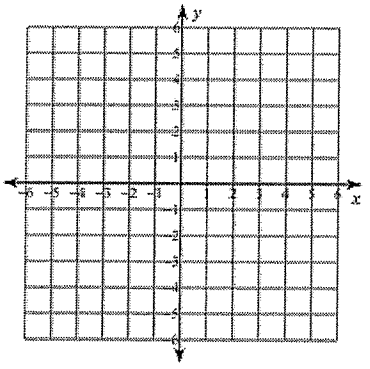
3) $y = 4$



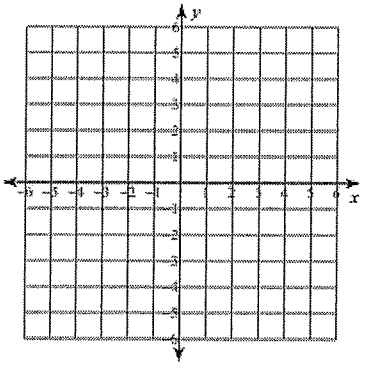
4) $6x + 5y = 20$



5) $x = -3$

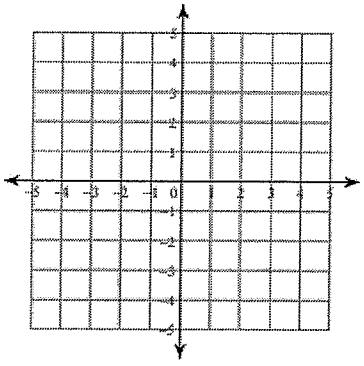


6) $2x + y = 4$

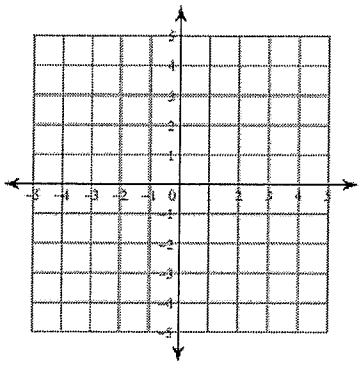


Graphing and Solving Simultaneous Equations

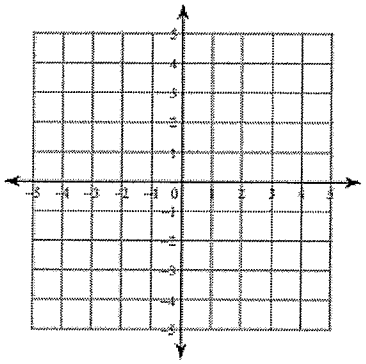
1) $y = -3x + 4$
$y = 3x - 2$



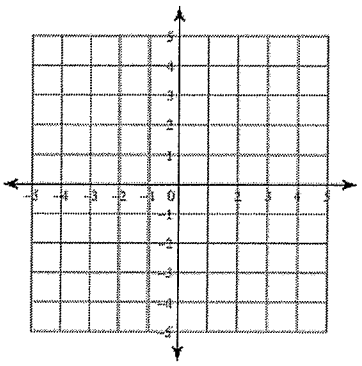
2) $y = x + 2$
$x = -3$



3) $x - y = 3$
$7x - y = -3$



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



5.

Castel and Gabriella are selling pies for a school fundraiser. Customers can buy apple pies and lemon meringue pies. Castel sold 6 apple pies and 4 lemon meringue pies for a total of $80. Gabriella sold 6 apple pies and 5 lemon meringue pies for a total of $94. What is the cost each of one apple pie and one lemon meringue pie?