Algebra 2 Honors – Summer Work

You need to get off to a good start so spend some quality time on this packet this summer. Each problem should be copied onto a separate sheet of paper and **all work must be shown**. Please use graph paper when graphing or print the pages containing graphs so that you have a coordinate plane to keep your work neat and organized. Also, do not rely on the calculator to work through any of these problems. You will be **tested without the calculator,** so practice without the calculator.

This packet is to be completed by the first day back to school in the fall. You will be tested over this material on the second day of class. You will also be expected to efficiently work through the problems under a time constraint. Many students are not prepared for this expectation and find they do not have the time to check their answers like they are used to. Please note that I will include a timed test of the multiplication facts through the 12's as part of the test as well. Prepare accordingly.

It is a mistake to decide to work this packet at the start of the summer. Let it go until mid-summer. We want these techniques to be relatively fresh in your mind in the fall. But, do not wait to do them at the very last minute.

I hope you take this seriously as I sincerely wish for you to be successful throughout this next year.

Fractions Review	Writing Equations of Lines
Solving Equations	Graphing Lines

Mixed Problems with Fractions

1) $\dfrac{1}{3} - \dfrac{3}{10} =$

2) $\dfrac{1}{10} \times \dfrac{4}{5} =$

3) $\dfrac{4}{10} \div \dfrac{1}{3} =$

4) $\dfrac{1}{3} + \dfrac{4}{5} =$

5) $\dfrac{1}{3} \div \dfrac{2}{4} =$

6) $\dfrac{2}{5} + \dfrac{9}{10} =$

7) $\dfrac{7}{10} - \dfrac{1}{4} =$

8) $\dfrac{1}{2} + \dfrac{2}{5} =$

9) $\dfrac{2}{3} - \dfrac{1}{2} =$

10) $\dfrac{1}{2} \times \dfrac{7}{10} =$

11) $\dfrac{1}{2} \div \dfrac{1}{3} =$

12) $\dfrac{1}{3} \times \dfrac{1}{2} =$

Summer Work

Write the slope-intercept form of the equation of the line through the given point with the given slope.

1) through: $(3, 2)$, slope $= \dfrac{4}{3}$

2) through: $(-2, -4)$, slope $= 2$

3) through: $(0, 1)$, slope $=$ undefined

4) through: $(3, 5)$, slope $= 3$

5) through: $(1, -1)$, slope $= -1$

Write the slope-intercept form of the equation of the line through the given points.

6) through: $(5, -5)$ and $(0, 0)$

7) through: $(-4, 1)$ and $(-5, 5)$

8) through: $(5, 4)$ and $(-5, -3)$

9) through: $(0, 4)$ and $(4, 0)$

10) through: $(3, -1)$ and $(0, -4)$

Write the slope-intercept form of the equation of the line described.

11) through: $(2, -2)$, parallel to $y = x + 3$

12) through: $(-5, -5)$, parallel to $y = \dfrac{3}{5}x - 3$

13) through: $(1, -1)$, perp. to $y = -\dfrac{1}{4}x - 3$

14) through: $(-3, -3)$, perp. to $y = \dfrac{3}{2}x - 4$

Algebra 2 & Precalculus

Name_____ ID: 1

Summer Work

Date_____ Period____

Solve each equation.

1) $-2(7v + 4) + 8v + 2 = -(6v + 6)$

2) $-1 - (7 - 5n) = 7(n - 4)$

3) $4 - 2(x - 1) = 2(x - 3)$

4) $-7(x - 6) - 2x = -3(x + 2)$

5) $2(6 - 4p) = -3(p + 6)$

6) $6(1 + 6n) = -7(1 - 5n)$

7) $-3(-8 + 8v) = -6(8v - 4)$
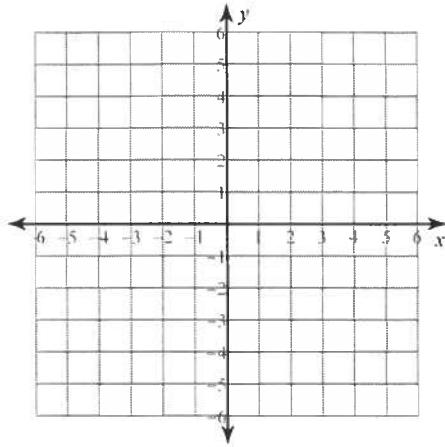
8) $-4 + 4(2r - 5) = 2 + 6(r - 8)$

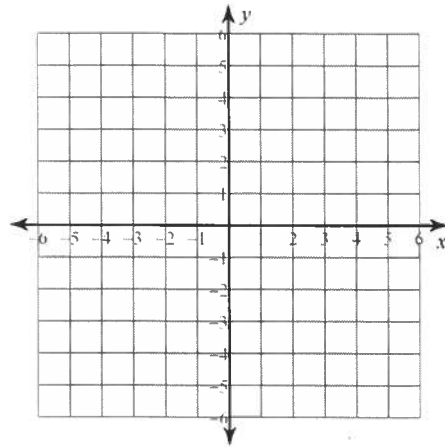9) $6(5b + 6) = 6(3b - 8)$

10) $6(3a - 6) = -2(5a + 4)$

Name_____ ID: 1

Summer Work

Date_____ Period____

Sketch the graph of each line.

1) $3x - y = 3$

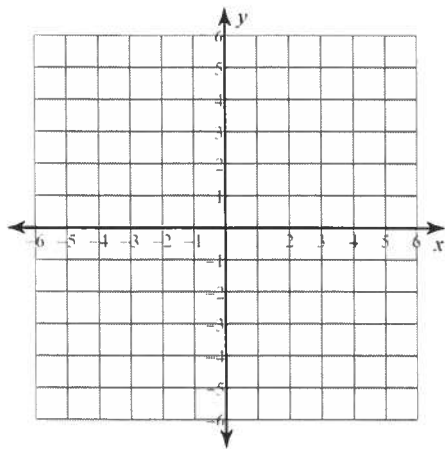2) $x - y = 2$

3) $5x + y = 0$
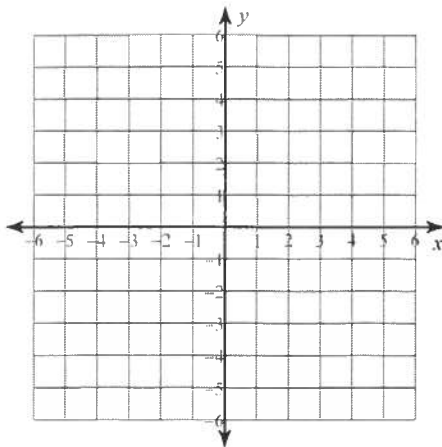
4) $7x + 3y = -15$
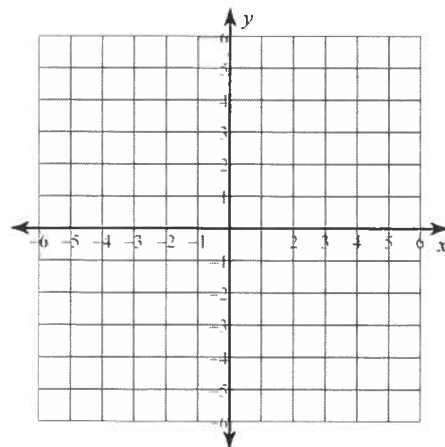
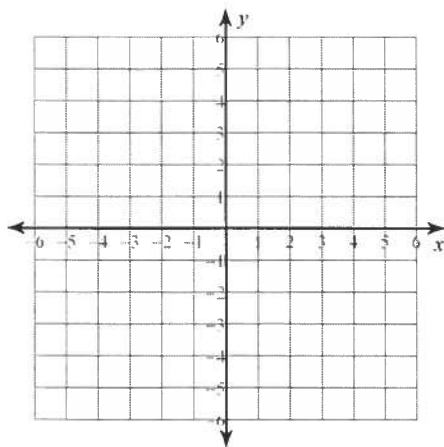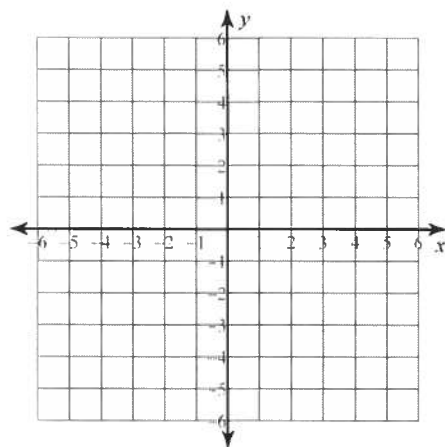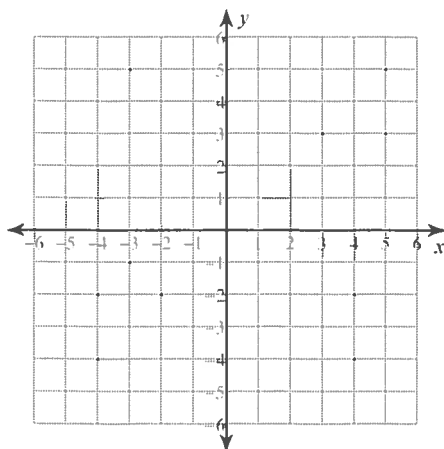5) $8x + 3y = 12$
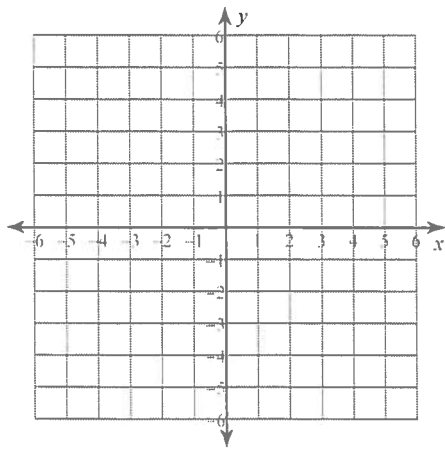
6) $y = x + 4$

7) $y = 2x + 5$

8) $x = -5$

9) $y = -2$

10) $y = \dfrac{1}{2}x - 5$