

Robbinsville School District Algebra II Summer Assignment

Welcome to Algebra II! On the following pages you will find your summer assignment for the upcoming 2015-2016 school year. The summer assignment reviews material that you have learned in Algebra 1. The packet is to be completed; it will be collected for a grade and is due on the **first day of school**. To help you review and complete your packet there are videos corresponding to each section of the packet. The videos are available using the information below.

Website: www.showme.com/RHS-Math

These videos may be accessed on any web-connected device with any web browser. Each video shares the identical title to the corresponding section in the summer packet.

Additionally QR codes are available within the packet, when scanned using a smartphone or tablet these codes will link directly to the corresponding video. The QR code below provides a link the url listed above.



Section 1: Factoring quadratic expressions with $a = 1$. Factor each completely.



1) $x^2 - 3x - 18$

2) $x^2 + 6x - 40$

3) $x^2 - 15x + 56$

4) $x^2 - 6x + 8$

5) $x^2 - 14x + 40$

6) $x^2 - 3x - 54$

7) $x^2 - 12x + 35$

8) $x^2 + x - 72$

9) $x^2 + 7x - 8$

10) $x^2 - 11x + 24$

Section 2: Factoring quadratic expressions with a Greatest Common Factor and $a = 1$. Factor each completely.

11) $3x^2 + 9x + 6$

12) $2x^2 - 16x + 14$



13) $3x^3 + 33x^2 + 54x$

14) $6x^4 - 6x^3 - 36x^2$

Section 3: Factoring quadratic expressions with Difference of Two Squares. Factor each completely.

15) $9x^2 - 16$

16) $9x^2 - 1$



17) $16x^2 - 25$

18) $25x^2 - 16$

19) $16x^2 - 1$

20) $25x^2 - 9$

21) $4x^2 - 25$

22) $x^2 - 16$



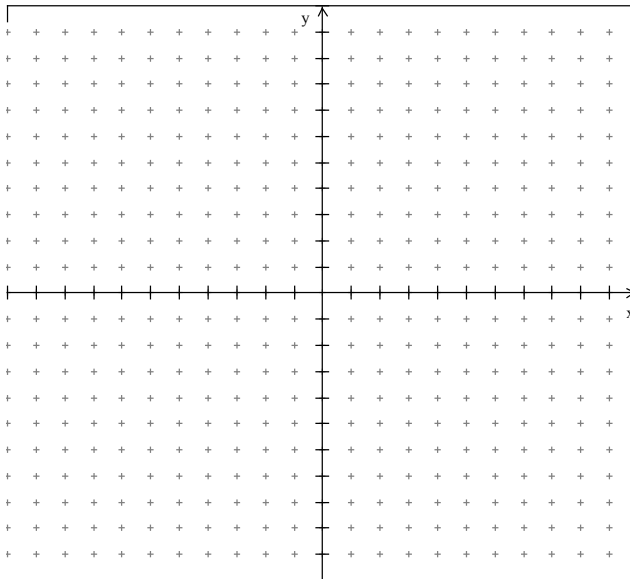
Section 4: Determine the slope, x intercept and y intercept given a Slope-Intercept Form equation and graph

23) Equation: $y = -\frac{1}{2}x - 2$

Slope: _____

y -int: _____

x -int: _____

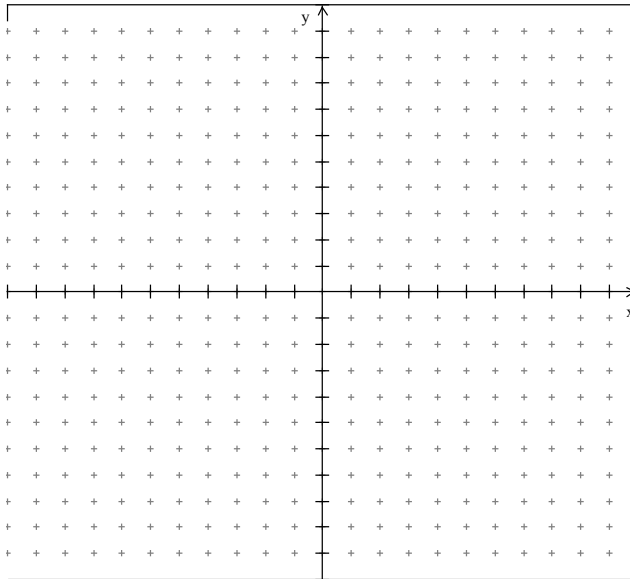


24) Equation: $y = 3x - 4$

Slope: _____

y -int: _____

x -int: _____

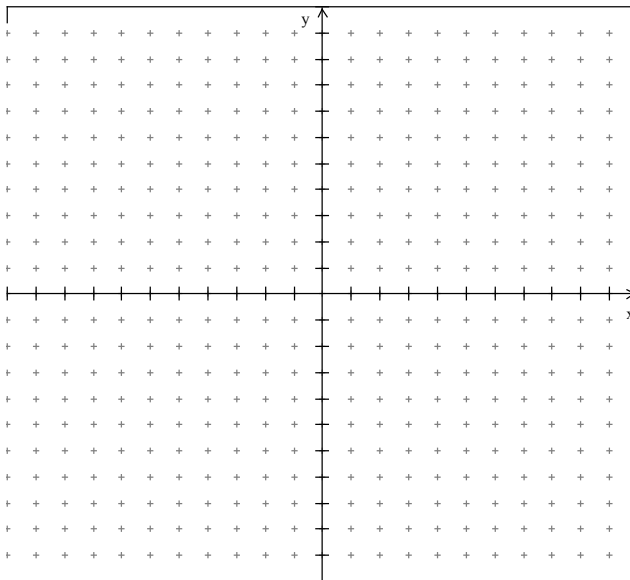


25) Equation: $y = \frac{3}{4}x - 5$

Slope: _____

y -int: _____

x -int: _____



Section 5: Determine the Slope-Intercept Form equation, slope, x intercept and y intercept given two points and graph.



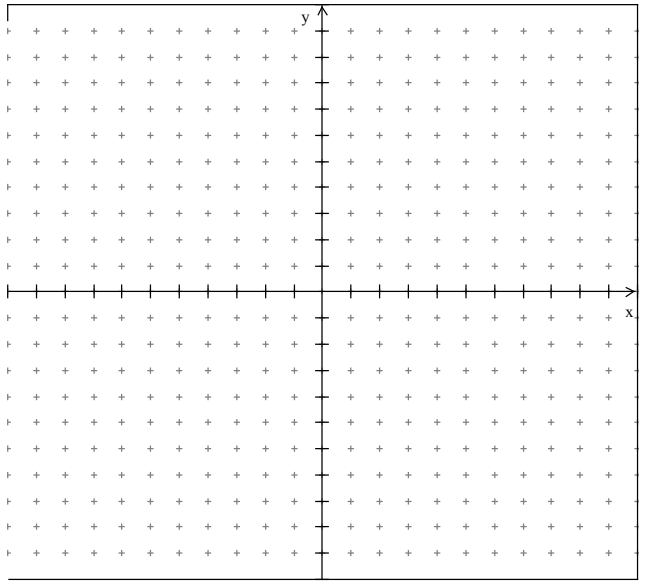
26) Given: $(-1, 4)$ and $(0, 1)$

Equation: _____

Slope: _____

y -int: _____

x -int: _____



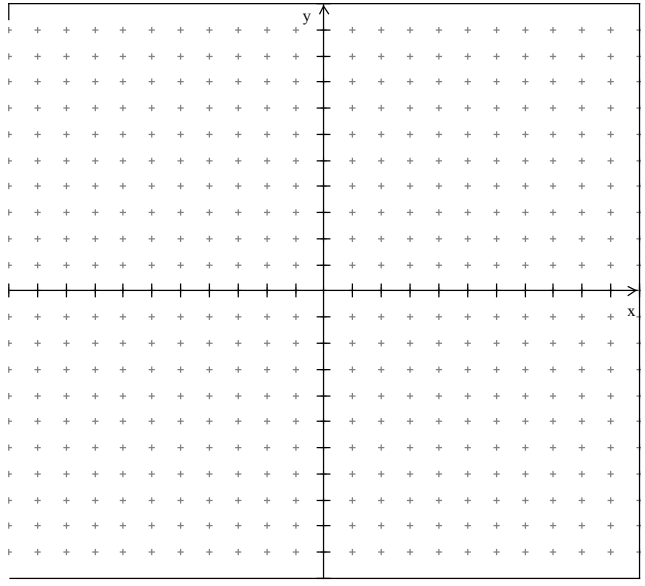
27) Given: $(-1, -2)$ and $(0, -4)$

Equation: _____

Slope: _____

y -int: _____

x -int: _____



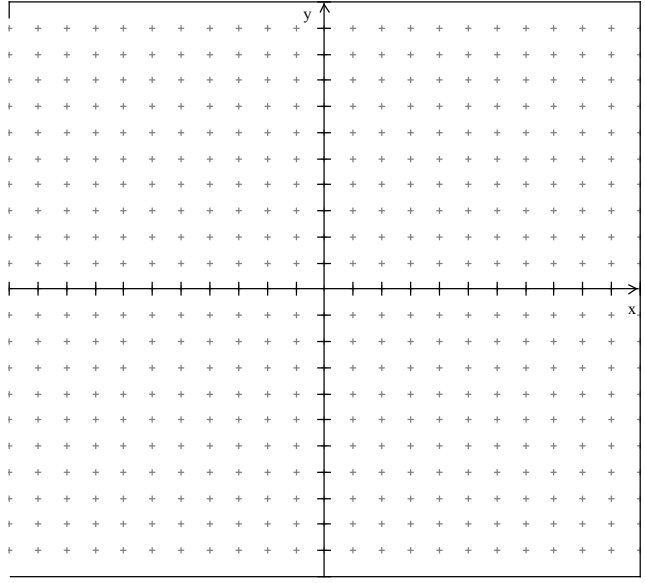
28) Given: $(0, 3)$ and $(4, -4)$

Equation: _____

Slope: _____

y -int: _____

x -int: _____



Section 6: Determine the slope, x intercept and y intercept given a Standard Form equation and graph.

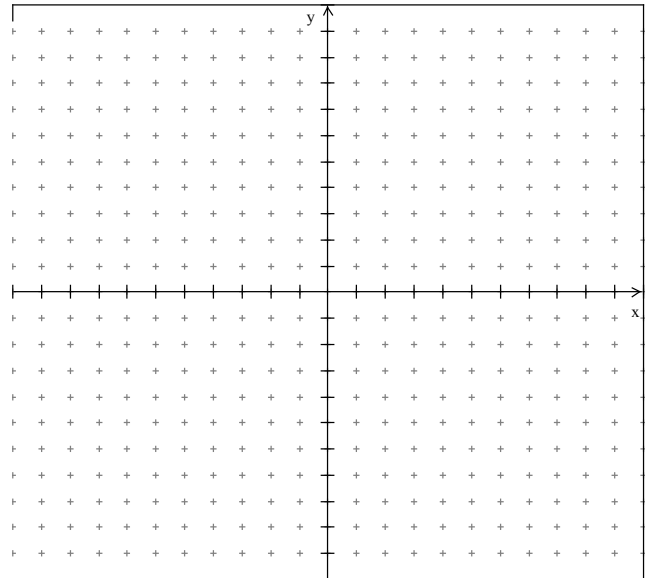


29) Equation: $x + 2y = -10$

Slope: _____

y-int: _____

x-int: _____

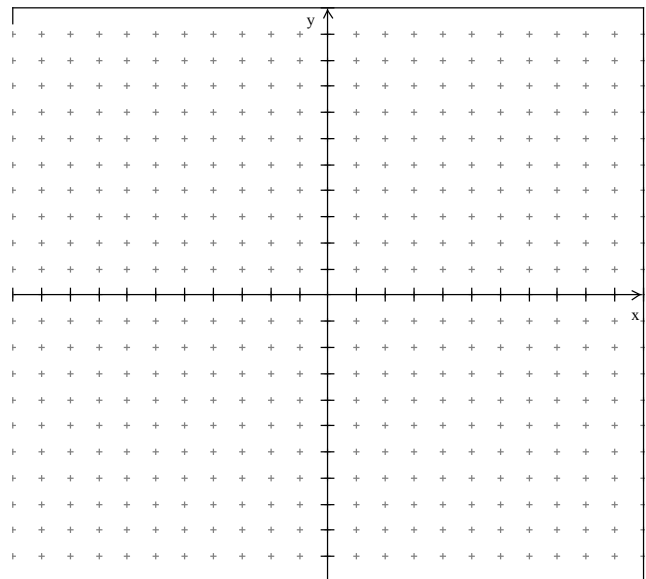


30) Equation: $4x - y = 1$

Slope: _____

y-int: _____

x-int: _____

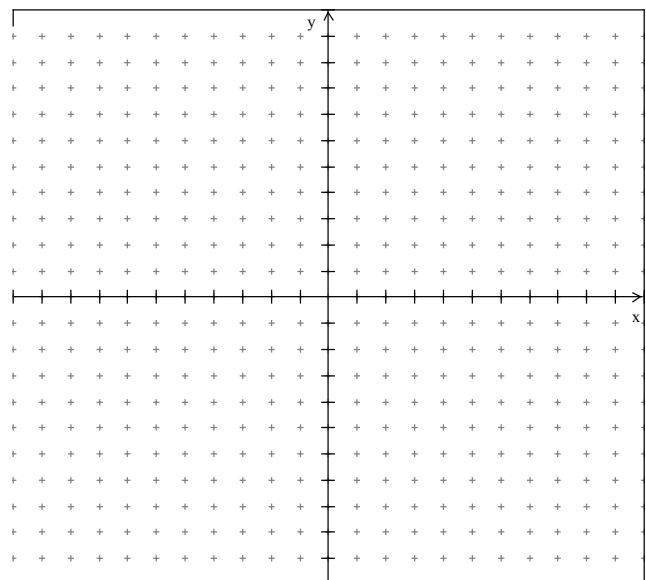


31) Equation: $9x + y = 5$

Slope: _____

y-int: _____

x-int: _____



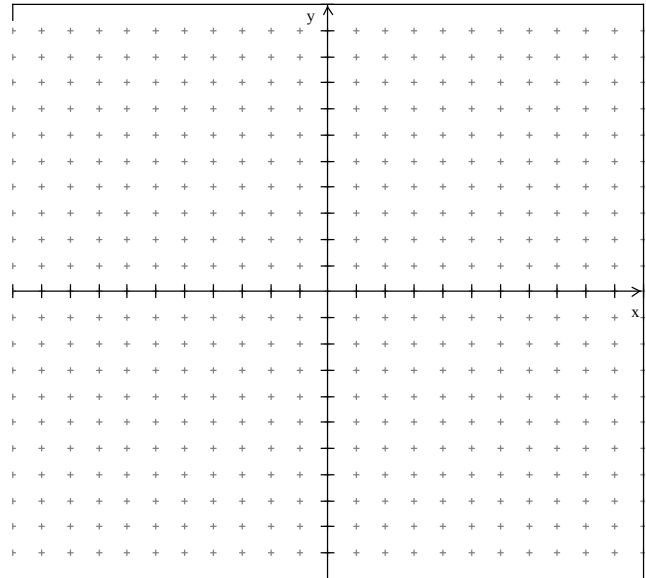


32) Equation: $y = 0$

Slope: _____

y -int: _____

x -int: _____

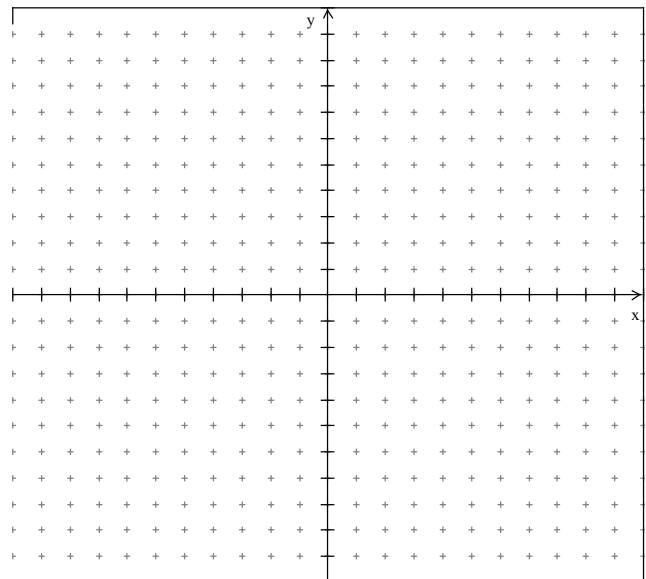


33) Equation: $x = 0$

Slope: _____

y -int: _____

x -int: _____



Section 7: Solve the equation for the variable.



34) $-125 = -5(5 + x)$

35) $11 = 3x + 5$

36) $-9 = -5 + \frac{x}{4}$

37) $49 = -7(-3 + x)$

38) $\frac{x}{5} - 7 = -5$

39) $-4 = 2(x + 2)$

40) $8(1 - 8x) = 8 + 7x$

41) $4 - 2(x - 6) = 6x + 8$

Section 8: Solve the inequality for the variable.

$$42) \quad \frac{8+x}{22} \leq 1$$

$$43) \quad 1 < \frac{x+8}{22}$$



$$44) \quad -8(x+2) \leq 144$$

$$45) \quad 1 - 7x > 78$$

$$46) \quad -5x + 4(5 - 2x) \leq 3x + 36$$

$$47) \quad -18 + 3x \geq 7(5 + 8x)$$

Section 9: Solve the system of linear equations using Elimination.

$$48) \quad \begin{cases} -6x + 6y = 12 \\ 4x + 6y = -28 \end{cases}$$

$$49) \quad \begin{cases} 4x - 4y = -24 \\ 4x + 7y = -13 \end{cases}$$



$$50) \quad \begin{cases} 3x + 5y = 29 \\ 6x + 3y = 9 \end{cases}$$