

Name \_\_\_\_\_  
Alg1

February Break Assignment  
Review Assignment

Part I:

1)  $\frac{5}{8}x + 11 = 91$

2)  $45 - \frac{3}{4}x = 132$

3)  $\frac{2}{3}x - 120 = 62$

4)  $54 - \frac{3}{8}x = 72$

5)  $7(4x + 3) - 8(4x - 2) = 97$

6)  $6(5x - 1) = 4(10x + 6)$

Will be handed in Monday, February 25, 2019 at the beginning of class.  
You must show ALL WORK

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$$7) 9(6x + 3) + 8(2x - 11) = -47$$

$$8) 6(7x - 2) = 5(9x + 3)$$

$$9) 10(8x + 6) = 8(4x + 9)$$

$$10) 5(11x - 5) - 7(9x - 2) = 21$$

*Answer Key:*

$$1) x = 128 \quad 2) x = -116 \quad 3) x = 273 \quad 4) x = -48 \quad 5) x = -15$$
$$6) x = -3 \quad 7) x = \frac{1}{5} \quad 8) x = -9 \quad 9) x = \frac{1}{4} \quad 10) x = -4$$

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Part II:

1) Solve (use solve by factoring):

2) Solve: (use quad formula or completing the square)

$$x^2 - 84 = 17x$$

$$x^2 - 26x - 11 = 0$$

3) Solve algebraically and check: (3 columns: 1<sup>st</sup> Variable, 2<sup>nd</sup> Variable, and Check)

$$\begin{aligned}x &= 9 - 2y \\ 5x + 11y &= 43\end{aligned}$$

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4) Solve algebraically and check: (3 columns: 1<sup>st</sup> Variable, 2<sup>nd</sup> Variable, and Check)

$$7x - 4y = -85$$

$$3x + 10y = 28$$

5) Factor:

a)  $x^2 + x - 110$

b)  $36x^2 - 49$

c)  $x^2 - 16x + 64$

d)  $6x^2 - 6x - 180$

e)  $6x^2 + 13x - 8$

f)  $121x^2 - 1$

g)  $12x^2 + 19x + 7$

h)  $6x^2 - 486$

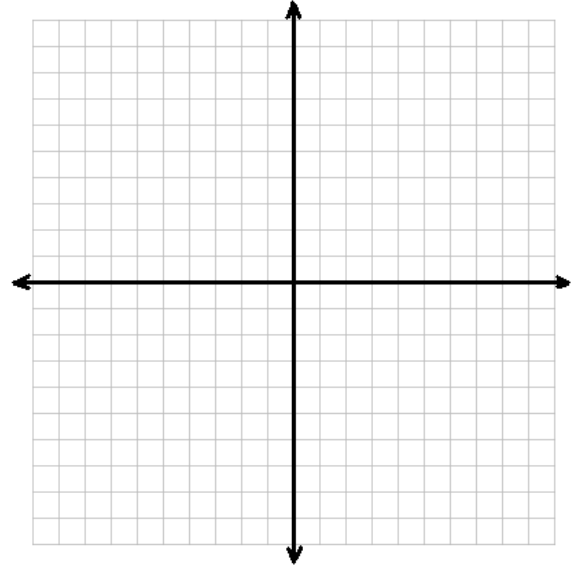
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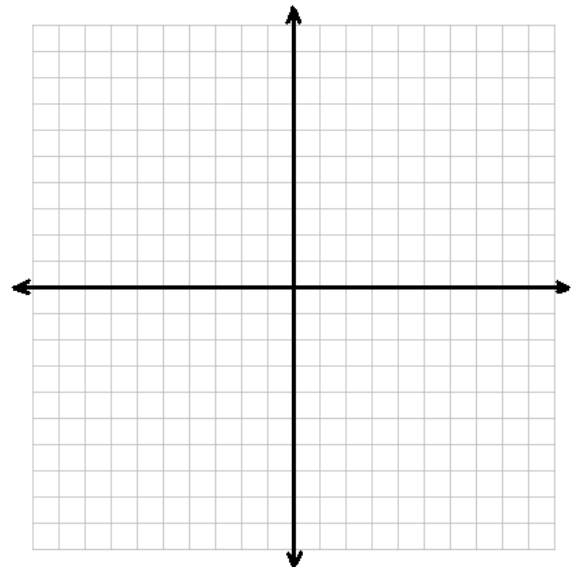
Solve the system of equations graphically and check:

$$\begin{aligned} 6) \quad 6x - 9y &= 45 \\ 4x + 8y &= 16 \end{aligned}$$



Solve the system of equations graphically and check:

$$\begin{aligned} 4) \quad y - 3 &= -\frac{3}{4}(x + 4) \\ x &= 8 \end{aligned}$$



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***Answer Key:***

1)  $x = \{-4, 17\}$

2)  $13 \pm 6\sqrt{5}$

3)  $(13, -2)$

4)  $(-9, 5.5)$

5) a)  $(x+11)(x-10)$

b)  $(6x-7)(6x+7)$

c)  $(x-8)(x-8)$

d)  $6(x+5)(x-6)$

e)  $(3x+8)(2x-1)$

f)  $(11x+1)(11x-1)$

g)  $(x+1)(12x+7)$

h)  $6(x+9)(x-9)$

6)  $(6, -1)$

7)  $(8, -6)$