Algebra 1 Name_____ ID: 1

End-of-Year Review: Linear Equations & Inequalities

Period____

Solve each equation.

1) $-8(k+4)-6k=-88$

2) $-3(-6a+5)=111$

3) $8+4(1-8p)=-8p+36$

4) $22+6n=-4(1+5n)$

5) $-\frac{5}{6}=n+\frac{3}{2}+\frac{4}{3}$

6) $-\frac{15}{4}=n-\frac{5}{2}-\frac{7}{2}n$

7) $-35=-\frac{8}{3}\left(-\frac{10}{3}x+2\right)+x$

8) $-\frac{10}{3}\left(\frac{5}{2}x+\frac{3}{2}\right)-1=-31$

Solve each inequality and graph its solution.

9) $3(5n+4) > -78$

10) $2(6p+6) < 72$

11) $5(3+4x) < -85$

12) $102 \leq 6(2+5n)$

Solve each compound inequality and graph its solution.

13) $7r - 6 > 43$ or $-9 - 2r \geq -7$

14) $-10 + 4m > -22$ and $5m + 6 \leq 1$

15) $11 \leq k + 6 < 13$

16) $-51 < 5a - 6 < 39$

Algebra 1 Name_____ ID: 1

End-of-Year Review: Systems of Equations & Inequalities

Period____

Solve each system by substitution.

1) $3x + y = 13$
$-x + 7y = 3$

2) $-x + 6y = 12$
$x - 4y = -10$

3) $x + 2y = -17$
$3x - 3y = -6$

Solve each system by elimination.

4) $-2x - 10y = 4$
$2x - 7y = 13$

5) $5x + 8y = -30$
$x - 2y = 30$

6) $2x + 6y = 30$
$-6x - 3y = 0$

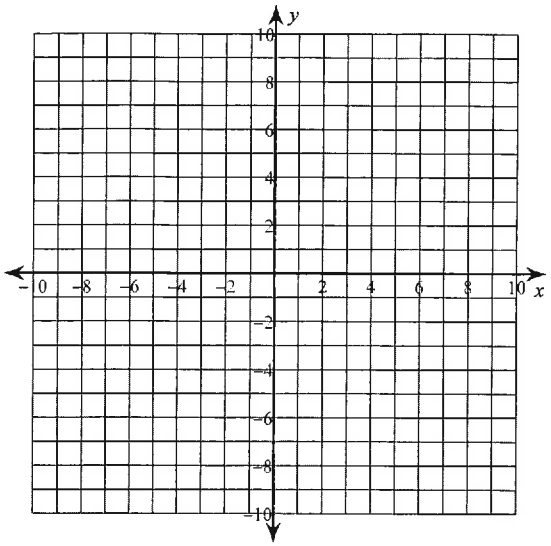
7) $5x - 10y = 5$
$7x - 6y = 23$

8) $10x - 4y = -28$
$-6x + 10y = -6$

Solve each system by graphing.

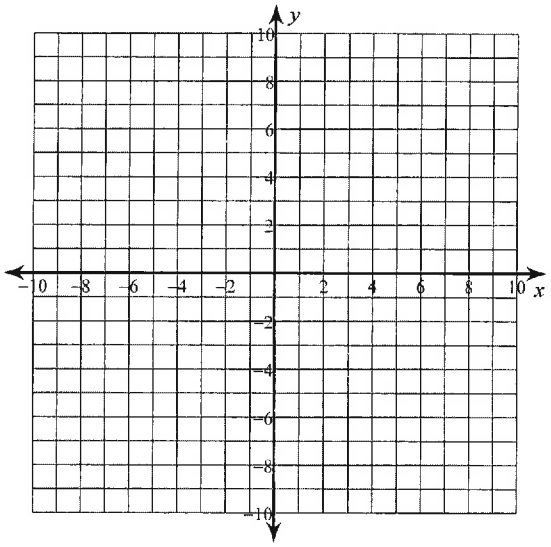
9) $y = -\frac{5}{3}x - 3$

$y = -8$



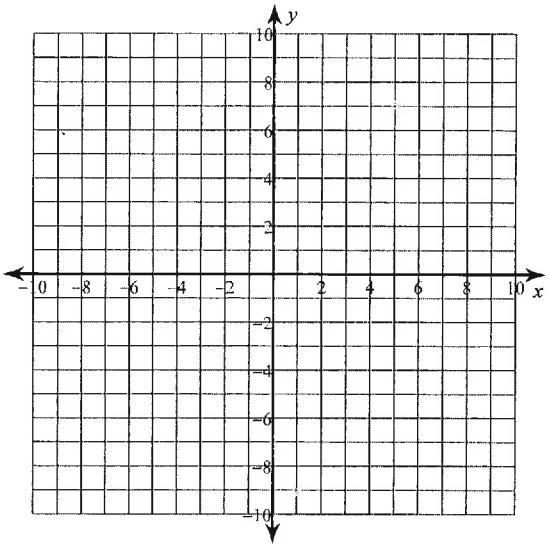
10) $y = \frac{1}{7}x + 3$

$y = -\frac{4}{7}x - 2$



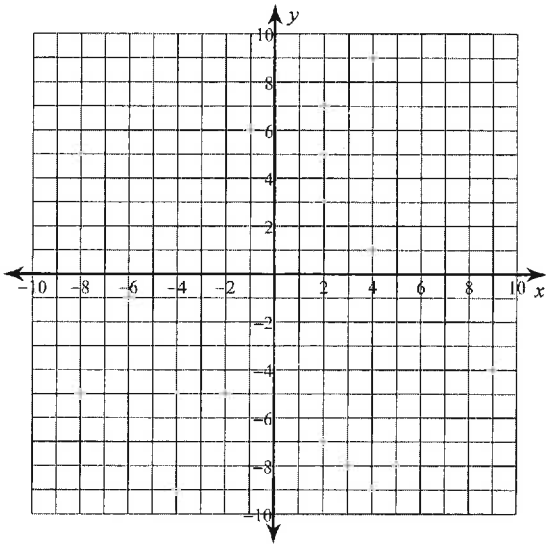
11) $y = 2x + 5$

$y = 2x - 4$



12) $2x + 3y = 18$

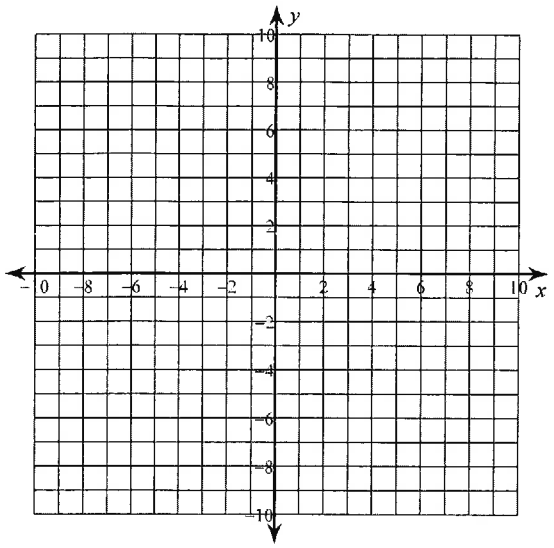
$11x - 3y = 21$



Sketch the solution to each system of inequalities.

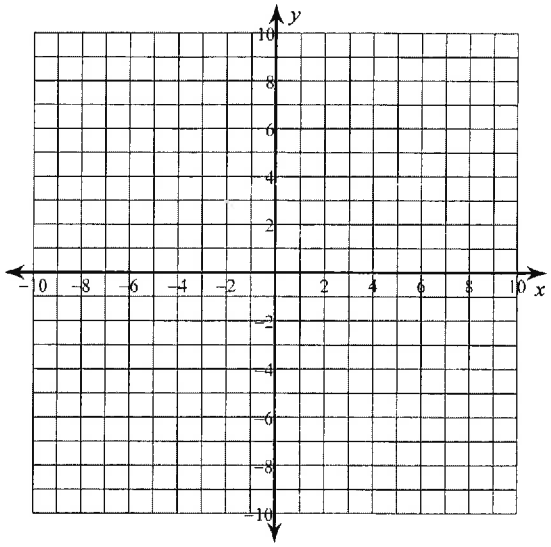
13) $y < \frac{5}{2}x + 8$

$y \leq -x + 1$



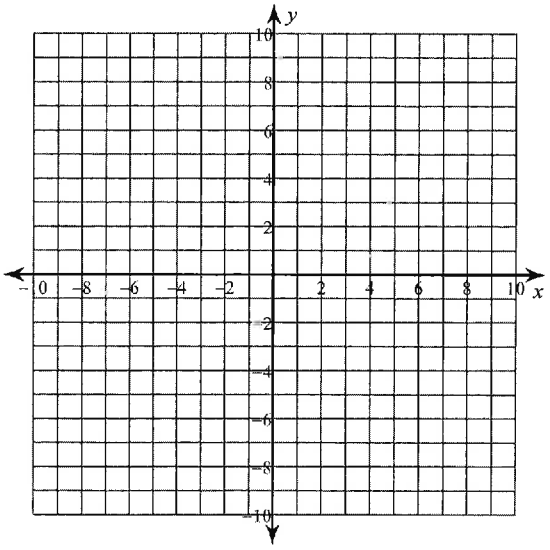
14) $y \leq -\frac{5}{6}x + 6$

$y > \frac{1}{3}x - 1$



15) $y \geq -\frac{6}{5}x - 2$

$y < \frac{1}{5}x + 5$



Algebra 1 Name_____ ID: 1

End-of-Year Review: Absolute Value Equations & Inequalities

Period____

Solve each equation.

1) $|1 + 4x| = 11$

2) $|-10p + 9| = 41$

3) $6|8n + 4| = 72$

4) $-10 + |3 - 9x| = 23$

5) $-4|-k + 4| = -24$

6) $|5 + 2a| - 4 = -1$

Solve each inequality and graph its solution.

7) $\left|-9+n\right|<1$

8) $\left|\frac{k}{7}\right|>4$

9) $-8+\left|\frac{n}{8}\right|\leq -7$

10) $\frac{\left|m+5\right|}{3}>5$

11) $7\left|5x-8\right|-4\leq 87$

12) $2+7\left|-8+m\right|\geq 16$

Algebra 1 Name_____ ID: 1

End-of-Year Review: Quadratic Equations

Period____

Solve each equation by taking square roots.

1) $100x^2 + 5 = 41$

2) $5k^2 - 3 = 297$

3) $8x^2 - 1 = 535$

4) $4n^2 - 5 = 59$

5) $3(p - 9)^2 = 243$

6) $9(b - 6)^2 = 144$

Solve each equation by factoring.

7) $(a+7)(a-8)=0$

8) $(4p+5)(p+4)=0$

9) $5v^2+16v+12=0$

10) $7x^2+13x-24=0$

11) $2k^2-17k+8=0$

12) $9x^2-6x-35=0$

13) $n^2-4n-12=0$

14) $x^2+2x-24=0$

Solve each equation with the quadratic formula.

15) $6v^2 - 6v - 6 = 0$

16) $b^2 + 6b - 72 = 0$

17) $3x^2 + 2x - 18 = 0$