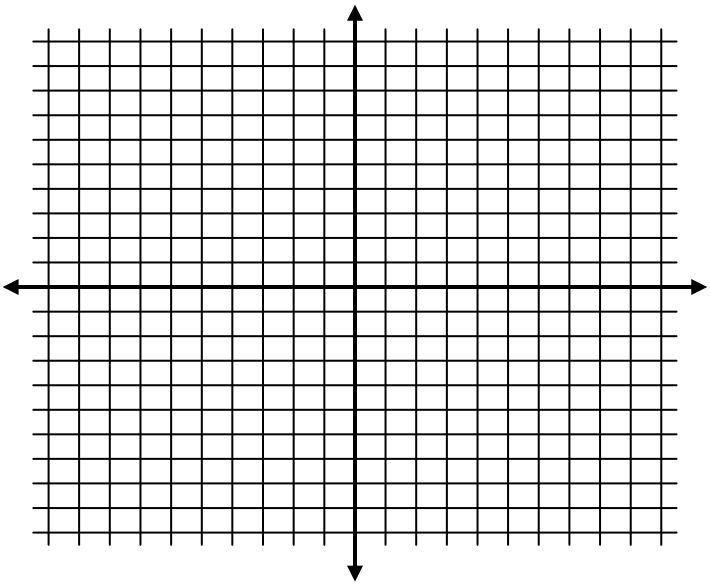
Name:_____**Date:**_____**Per:**_____

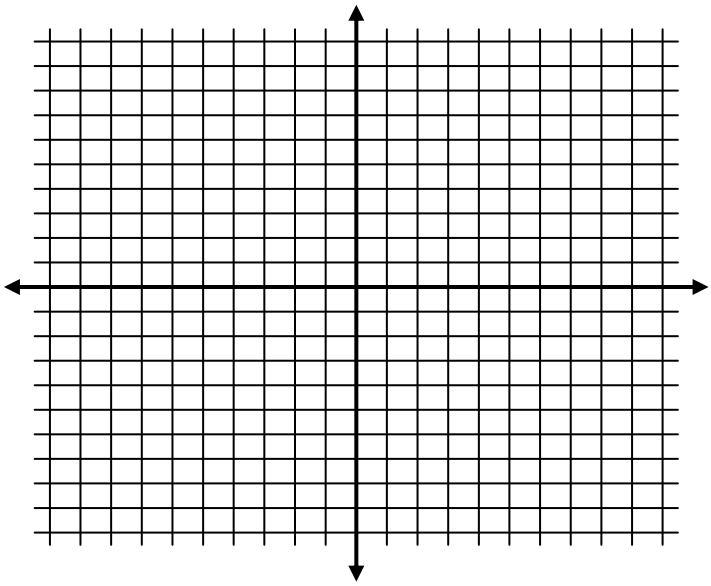
Final Exam Review
Systems of Equations and Exponents

Solve the following systems of equation by graphing. Be sure to state the solution.

1. $y = -3x + 1$
$y = x - 7$



2. $x + y = 3$
$x - y = 5$



Solve the following systems of equations by substitution.

3. $y = 2x - 7$
$x + 2y = 1$

4. $x + 4y = 9$
$x - y = 4$

Solve the following systems of equations by eliminating a variable.

5. $x + 2y = 13$
$x - 2y = -7$

6. $4y = 11 - 3x$
$3x + 2y = -5$

7. $x + 6y = 28$
$2x - 3y = -19$

8. $3x - 5y = -7$
$-4x + 7y = 8$

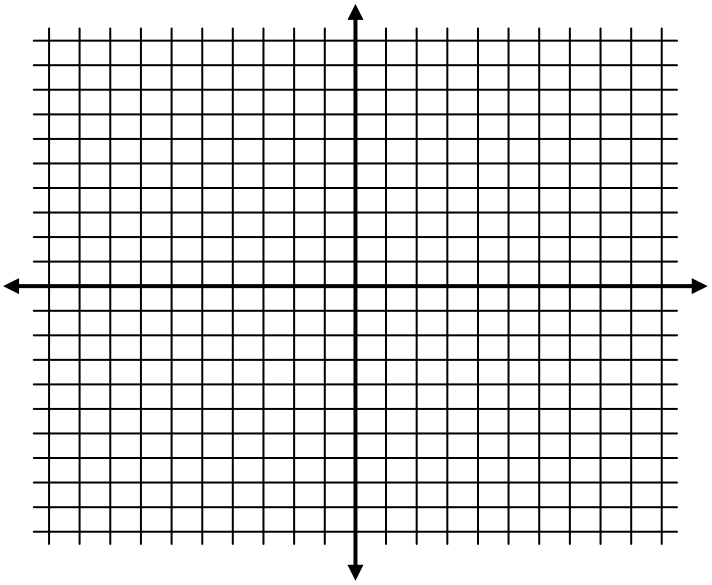
9. $-x + y = 8$
$x - y = -8$

10. Without solving the system tell whether it has *one solution*¸*no solution*¸or *infinitely many solutions.*

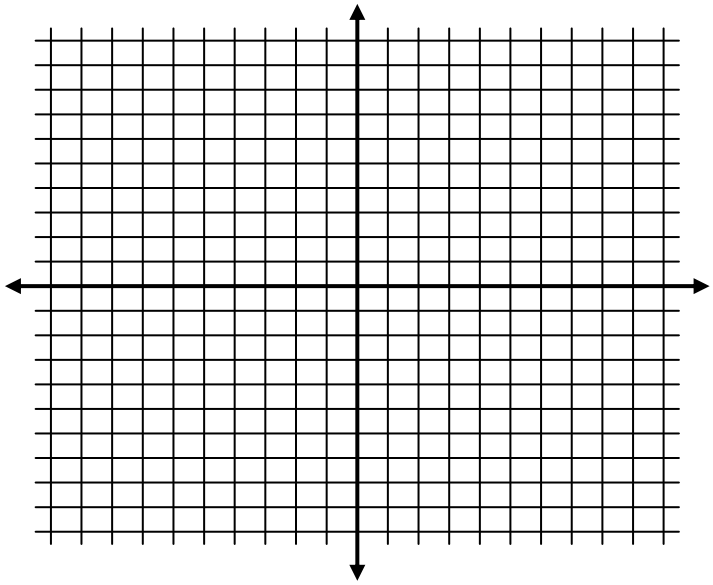
$2y + 6 = 4x$
$4x + 2y = 10$

Graphing the following systems of linear inequalities.

11. $y < x + 3$
$y > -3x - 2$



12. $y \leq -x - 2$
$y > 4x + 1$



Simplify the following expressions.

13. $\left(\frac{2m^5n}{4m^2}\right)^2\left(\frac{mn^4}{5n}\right)^2$

14. $\frac{2s^3t^3}{st^2}\cdot\frac{(3st)^3}{s^2t}$

15. $\frac{(3x)^{-3}y^4}{x^2y^{-6}}$

16. $\frac{12x^8y^{-7}}{(4x^{-2}y^{-6})^2}$

17. $(6x^{-2}y^3)^{-3}$

18. $(-15fg^2)^0$