

Homework: Systems of Inequalities

In Problems 1-7, graph each inequality.

1. $x - 3y \leq 9$	2. $y \geq \frac{2}{3}x - 1$
3. $x > 3$	4. $x^2 + y^2 \leq 9$
5. $(x - 3)^2 + (y + 1)^2 > 16$	6. $y \geq x^2 - 4$
7. $y < \log_3(x - 2)$	

In Problems 8-13, graph the solution set of each system of inequalities or indicate that the system has no solution.

8. $3x - 4y \leq 12$ $2x + 3y > 6$	9. $x - 4y \leq 2$ $y > x + 4$
10. $-3 \leq x < 4$	11. $x + y > 2$ $x + y < -3$
12. $y \geq x^2 - 3$ $2x - y > 2$	13. $x^2 + y^2 > 1$ $x^2 + y^2 \leq 9$
14. $y > e^x$ $y < -3x + 4$	