Honors Math II

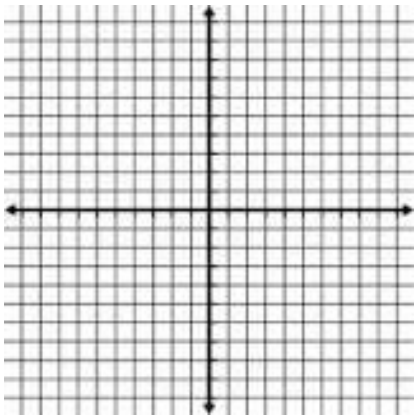
Unit 6 day 4

Name_____

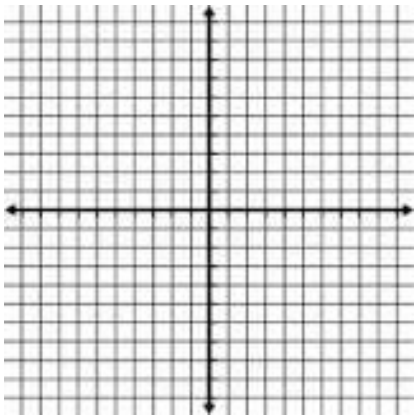
Date_____Period_____

Solve the system by graphing.

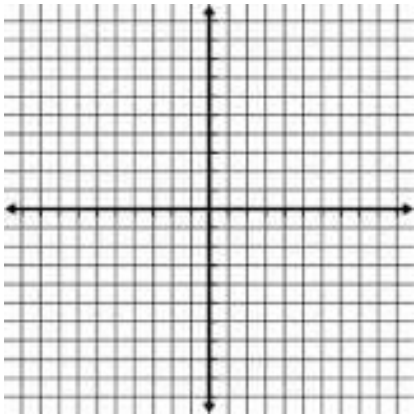
1. $-7x - 4 - y = 0$
   $-x + y = 4$



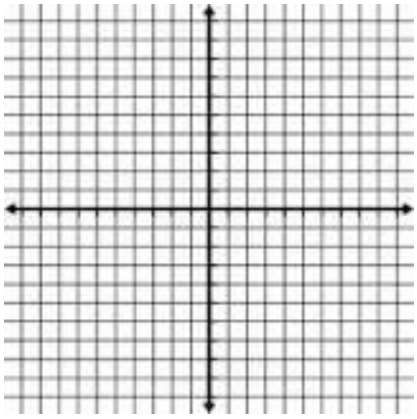
2. $1 = -5x + y$
   $-3y + 3x = 9$



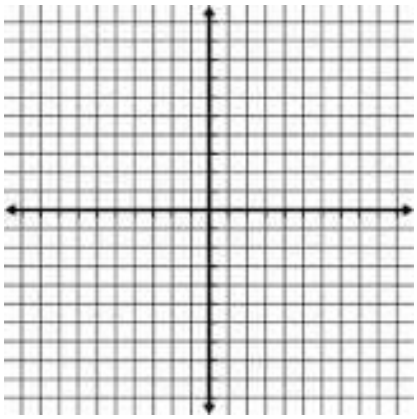
3. $y = \frac{1}{3}|x + 5| - 5$
   $y + 2x = -1$



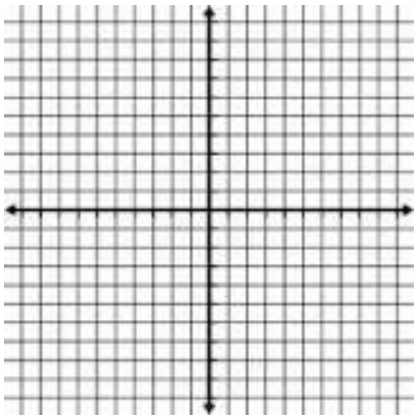
4. $y = -(x - 3)^2 + 8$
   $(x + 3)^2 + (y - 4)^2 = 16$



5. $y = -2(x - 2)^2 + 4$
   $y = 2^x$

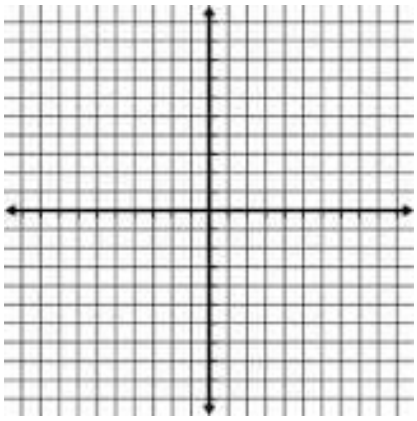


6. $y = -(x - 4)^2 + 6$
   $y = -3^x$

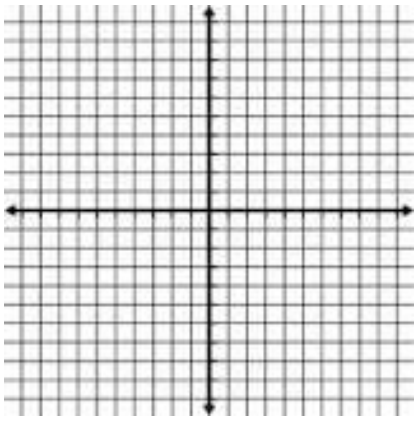


Sketch the solution to each system of inequalities.

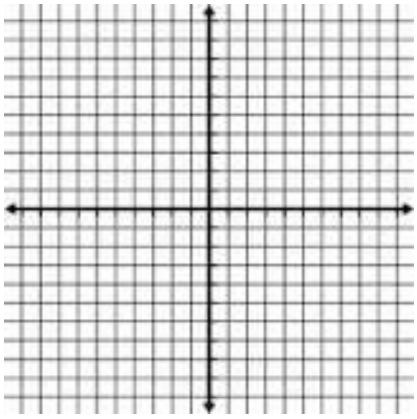
6. $y \leq 3$
$y > |x + 4|$



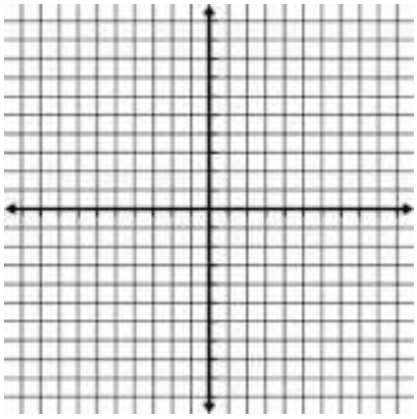
7. $y \geq 2|x + 1|$
$y < x + 1$



8. $x^2 + y^2 \leq 4$
$y \geq |x| - 2$

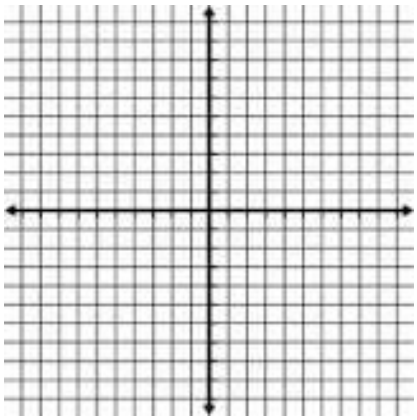


9. $x > -5$
$y \leq -x^2 - 10x - 16$



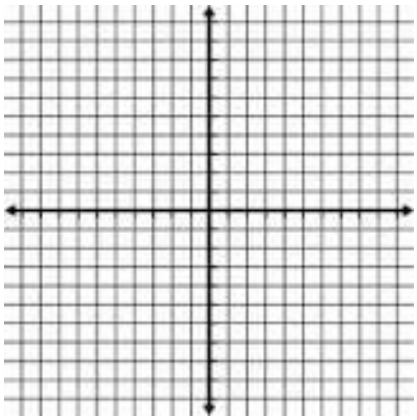
10. $(x + 6)^2 + (y + 5)^2 \leq 16$

$2y - 2x > -14$



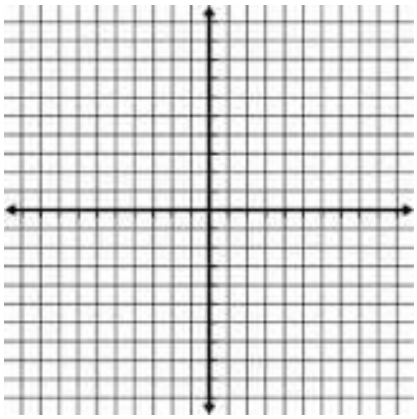
11. $2x - y < 3$

$x - 3y \leq -6$



12. $3x + y \geq 2$

$2x - y < 3$

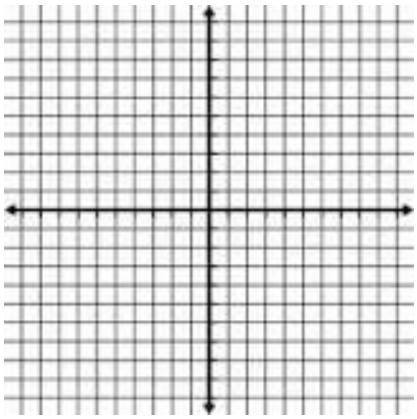


13. $x + y < 5$

$x + y > -5$

$x - y < 4$

$x - y > -2$



Solve the following systems.

16. $x - 4y = 16$

$-7x + 6y = -24$

17. $y = x^2 + 12x + 36$

$2y = -x^2 - 12x - 24$

18. $y = x^2 - 9x + 18$

$y = x - 3$

19. $-2x - 2y = -8$

$y = -4x + 4$

20. $8x - y = -14$

$5x + 7y = -24$

21. $2x - 4y = 10$

$-3x + 6y = 12$

22. $-4x - 4y = 16$
$7x + 7y = -28$

23. $y = -x^2 - 4x + 1$
$y = 2x^2 + 8x + 1$

24. $x^2 + y^2 = 10$
$y = -3x + 10$

25. $y = x - 3$
$-2y - 3x = -4$

26. $6x + y - z = -16$
$x + 6y + 3z = 23$
$-x + y + 2z = 5$

27. $2x - y + 2z = -21$
$x + 5y - z = 25$
$-3x + 2y + 4z = 6$