Honors Math II

Graphing systems

Name_____

Date_____Period_____

1. Sketch examples to illustrate the different numbers of points of intersection that the following graphs can have.

a) 2 lines

b) a line and a parabola

c) a line and a circle

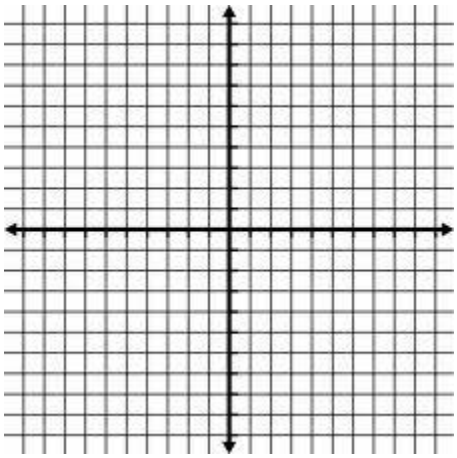
d) a line and an absolute value

e) a parabola and a circle

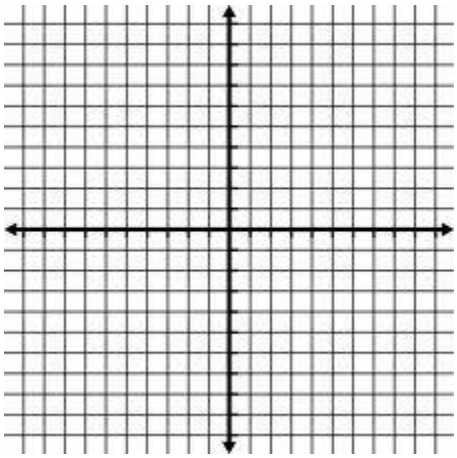
f) an absolute value and a circle

Solve the following systems.

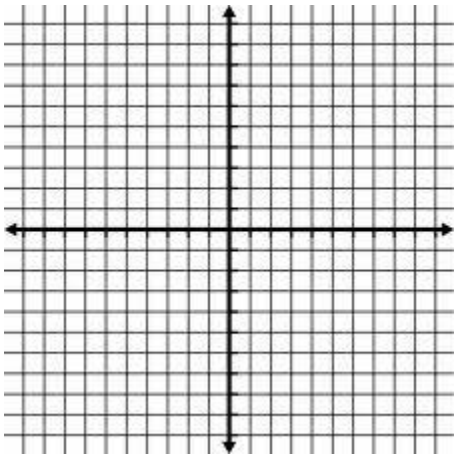
2. $(x-2)^2 + (y-4)^2 = 16$
$x - y = 2$



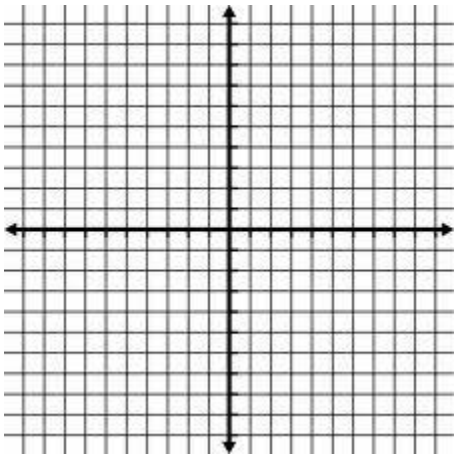
3. $2y - 3x = -6$
$2y + x = 10$



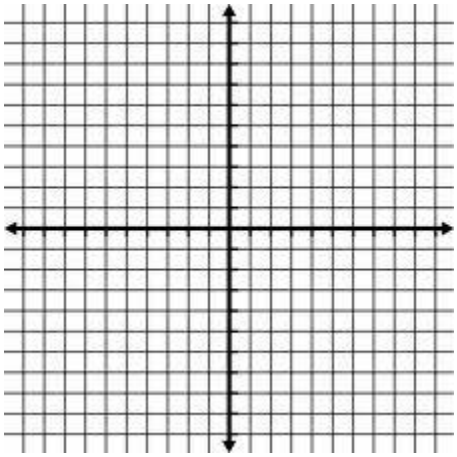
4. $y = \frac{1}{2}|x + 5| - 3$
$5x - y = -4$



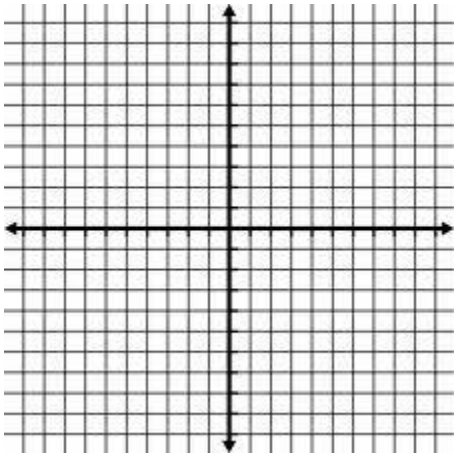
5. $y = (x + 4)^2 - 10$
$y - 2x = 1$



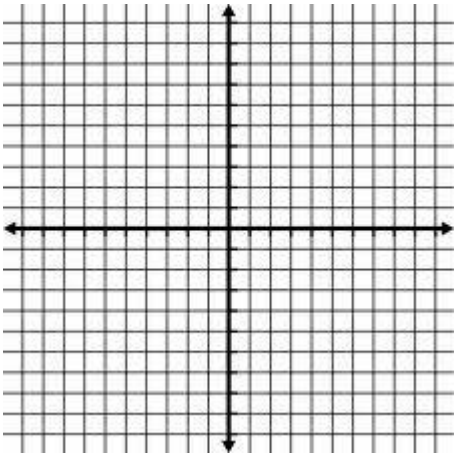
6. $(x + 5)^2 + (y - 6)^2 = 20$
$2y - 6x = 14$



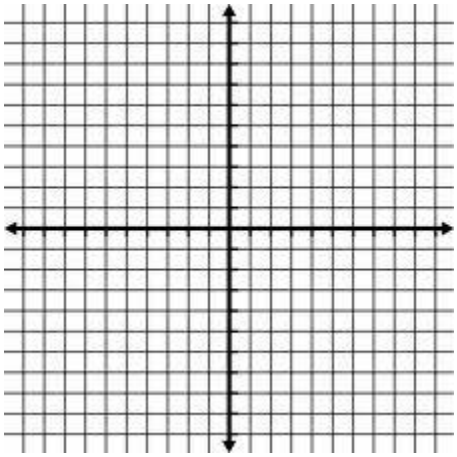
7. $y = 2|x - 1| - 6$
$y = 3x + 1$



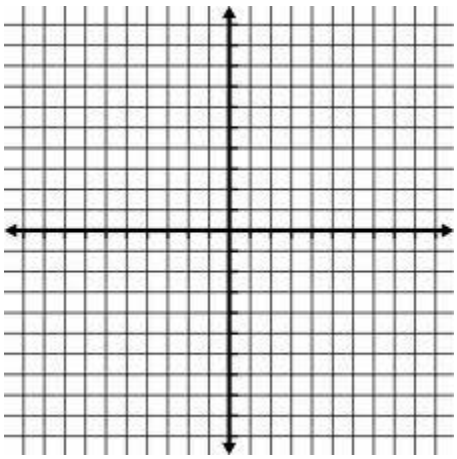
8. $x^2 + y^2 = 13$
$y = x + 1$



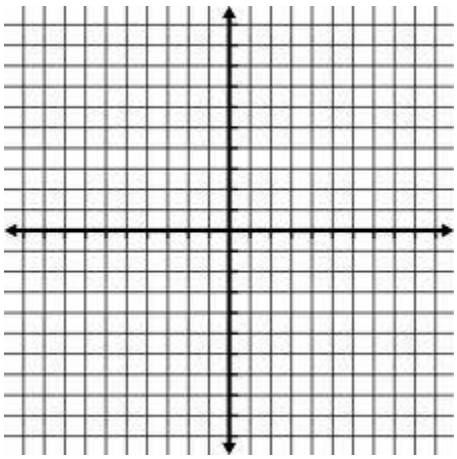
9. $y = -(x - 2)^2 + 1$
$x + y = 1$



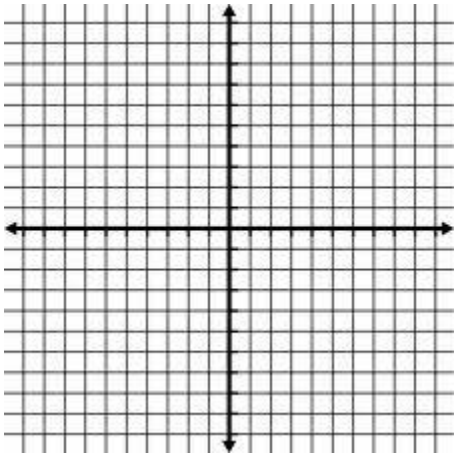
10. $y = 2|x - 2| - 4$
$2y - 4x = -16$



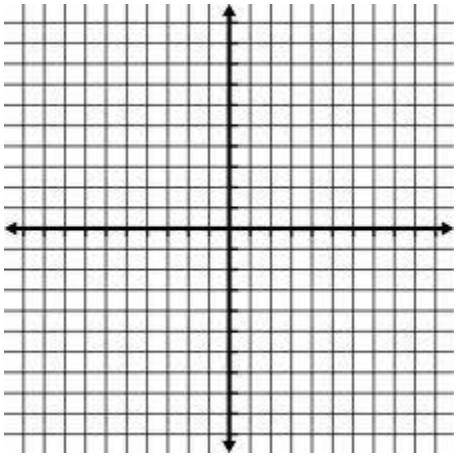
11. $y = (x - 1)^2$
$y = x - 3$



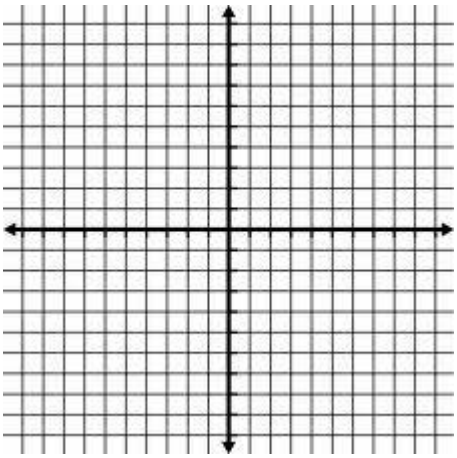
12. $y = 2x^2 - 16x + 38$
$y = 2x - 2$



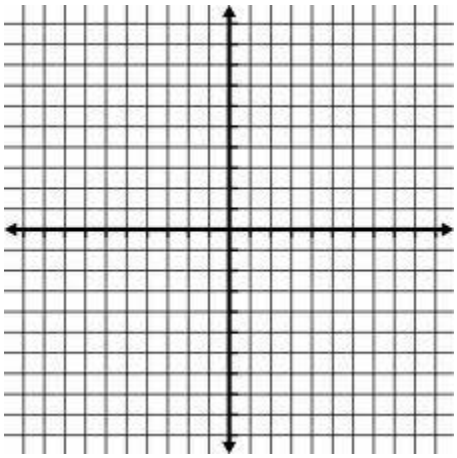
13. $(x + 3)^2 + (y + 5)^2 = 4$
$-x + y = -4$



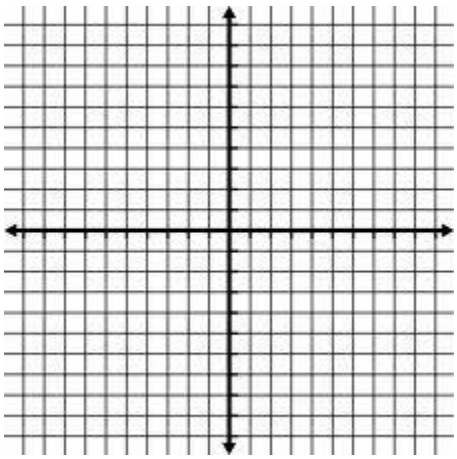
14. $x^2 + y^2 = 25$
$4y = 3x$



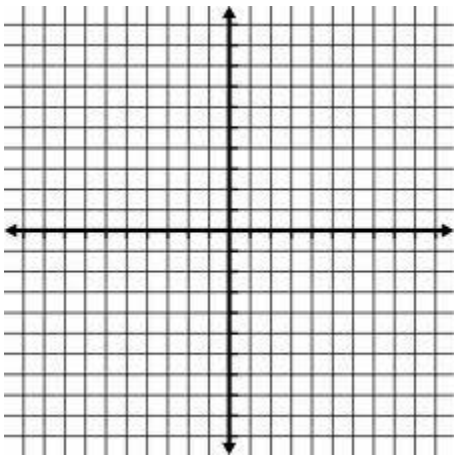
15. $y = x^2 - 2x + 2$
$y - 2x = -2$



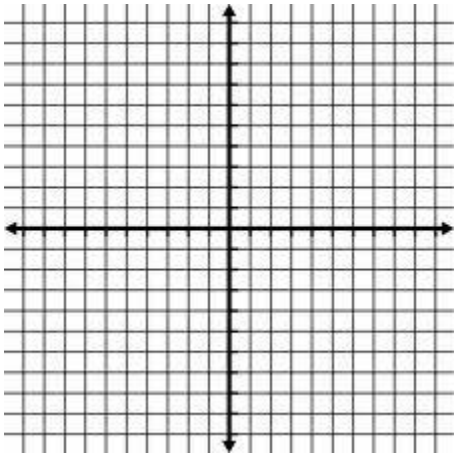
16. $y = x^2 + 6x + 7$
$y = -2x^2 - 12x - 17$



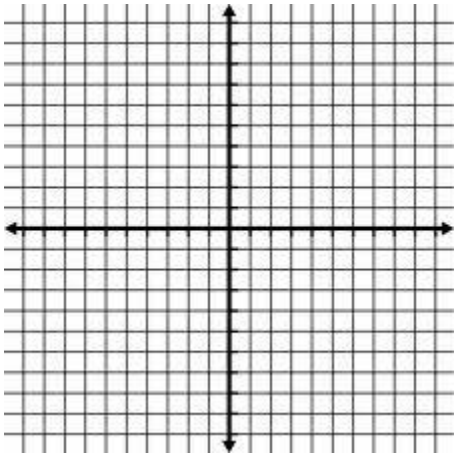
17. $y = x^2 + 1$
$y - x = 1$



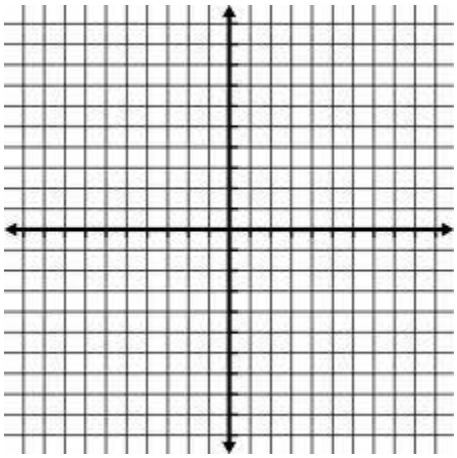
18. $(x - 3)^2 + y^2 = 10$
$x - 3y = 3$



19. $y = x^2 - 6x + 5$
$2y - 2x = 10$



20. $x^2 + y^2 = 16$
$y = -x^2 + 4$



21. $y = \frac{-2}{3}|x + 6| + 4$
$y = 3x^2 + 18x + 29$