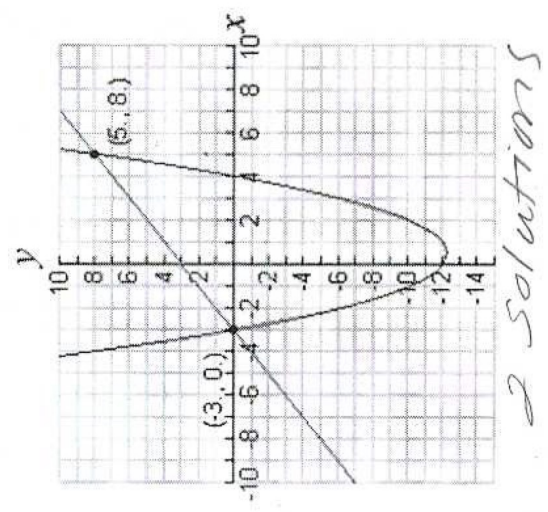
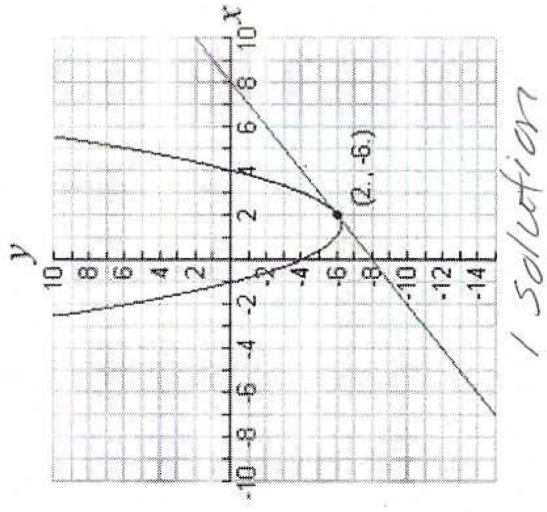


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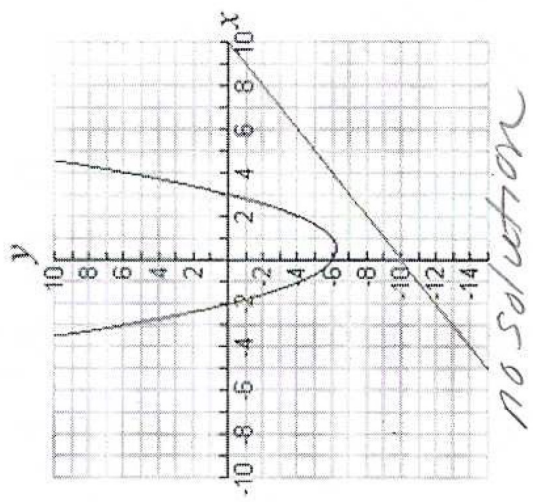
A quadratic-linear system consists of a quadratic equation and a linear equation.



The solution of a quadratic linear system is the set of ordered pairs of numbers that make both equations true.



Depending on how many times the line intersects the curve, the solution set may contain 2 ordered pairs, 1 ordered pair, or no ordered pairs.



Name: _____
Jan 17 - Alg. 1 H glue on page 100
HW: Green text p.528 #s 10-12, use pages 101 - 102

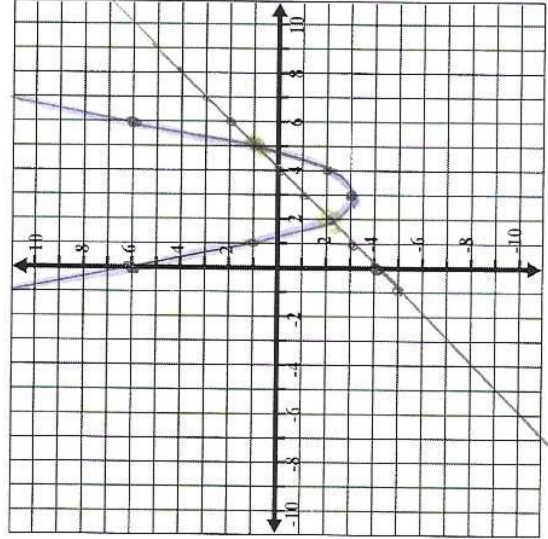
Solving Quadratic - Linear Systems Graphically

1.) Solve the linear-quadratic systems graphically: $y = x^2 - 6x + 6$
 $y - x = -4$
 $y = mx + b$
 $y = x - 4$
 $m = \frac{1}{1}, b = -4$

$x = \frac{-(-6) \pm \sqrt{(-6)^2 - 4(1)(6)}}{2(1)}$
 domain range

x	y
0	6
1	1
2	-2
3	-3
4	-2
5	1
6	6

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



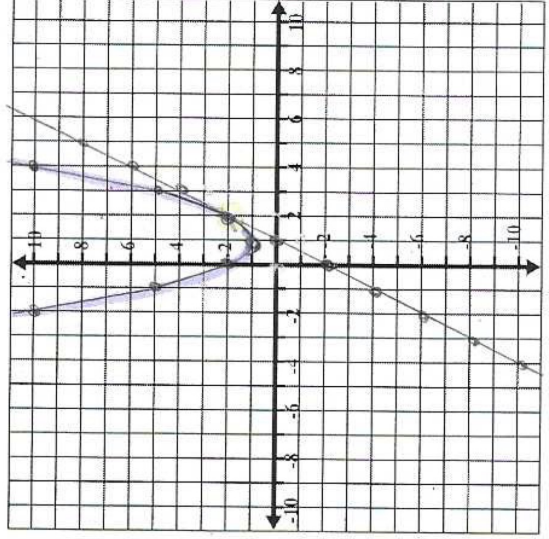
The quadratic-linear system has 2 solution(s). The solution(s) (2, -2) & (5, 1)

2.) Solve the linear-quadratic systems graphically: $y = x^2 - 2x + 2$
 $y - 2x = -2$
 $y = 2x - 2$
 $m = \frac{2}{1}, b = -2$

$x = \frac{-(-2) \pm \sqrt{(-2)^2 - 4(1)(2)}}{2(1)}$

x	y
-2	10
-1	5
0	2
1	1
2	2
3	5
4	10

$y = x^2 - 2x + 2$
 $f(1) = (1)^2 - 2(1) + 2 = 1$
 $f(1) = 1$

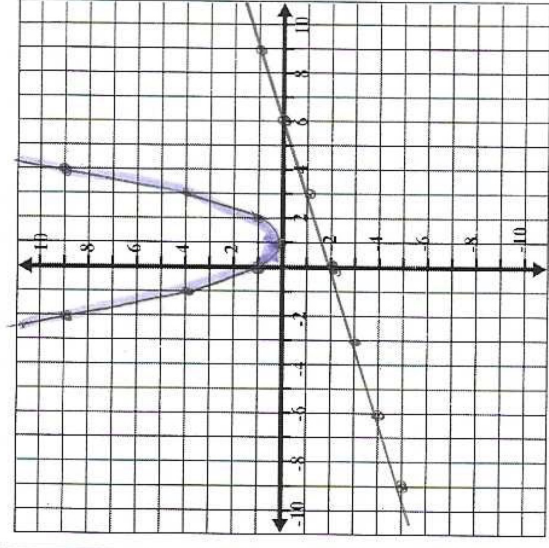


The quadratic-linear system has 1 solution(s). The solution(s) (2, 2)

3.) Solve the linear-quadratic systems graphically: $y = x^2 - 2x + 1$
 $x = \frac{-b}{2a}$
 $x = \frac{-(-2)}{2(1)} = 1$
 $m = \frac{1}{3}, b = -2$

x	y
-2	9
-1	4
0	1
1	0
2	1
3	4
4	9

$y = x^2 - 2x + 1$
 $f(1) = (1)^2 - 2(1) + 1 = 0$
 $f(1) = 0$



The quadratic-linear system has 0 solution(s). The solution(s) none b/c doesn't intersect.