Day 08 Solving Non-Linear Systems Algebraically CW/HW Name_____

Solving a System Algebraically: For each problem, do the following.

1) Solve each equation for y.
2) Set the two equations equal to each other and solve for x.
3) Plug your x values into either one of the original equations to solve for the y values.
4) State your solutions as coordinate points.

1) $y = -2(x-2)^2 + 8$
$y = (x-2)^2 + 5$

2) $y = \frac{1}{2}x^2 + 4$
$y = 3x^2 - 6$

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

4) $y = x^2$
$y = x + 2$

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

6) $y = -x^2 - 3$
$y = x^2 - 5$

7) $y = x^2 - 4$
$y = 3x$

8) $y = (x-1)^2 + 3$
$2x + y = 5$