Name $\qquad$ Date $\qquad$ Pd $\qquad$

### 3.5 Solving Non-Linear Systems CYU

$\square$ Use when you get it right all by yourself
SUse when you did it all by yourself, but made a silly mistake
$\boldsymbol{H}$ Use when you could do it alone with a little help from teacher or peer
$\boldsymbol{G}$ Use when you completed the problem in a group
X Use when a question was attempted but wrong (get help)
$N$ Use when a question was not even attempted

| CONCEPTS | BASIC | INTERMEDIATE | ADV ANCED |
| :--- | :---: | :---: | :---: |
| Solving Systems by graphing | 1,2 | 3 |  |
| Solving Systems by substitution | $4,5,6$ |  | 7 |
| Solving Systems by elimination | 8,9 | 10 | 11 |

Solve the system by graphing. Remember you can check your answer by plugging them back into the original equations.

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

2. $\begin{gathered}y=-3 x-17 \\ y=-3 x^{2}-30 x-71\end{gathered}$

3. $\begin{gathered}y=\frac{1}{2}(x+2)^{2} \\ y=-\frac{1}{2} x^{2}+2\end{gathered}$


Solve the system by substitution. Remember you can check your answer by plugging them back into the original equations.
$y=x+5$
4. $y=x^{2}-x+2$
5. $\begin{gathered}y=-8 \\ x^{2}+y^{2}=64\end{gathered}$
6. $\begin{gathered}x=3 \\ -3 x^{2}+4 x-y=8\end{gathered}$
7. $\begin{gathered}y+16 x-22=4 x^{2} \\ 4 x^{2}-24 x+26+y=0\end{gathered}$

Solve the system by elimination. Remember you can check your answer by plugging them back into the original equations.
8. $\begin{gathered}-x+2=-y \\ -3 x^{2}+2 x-5=y\end{gathered}$
9. $\begin{gathered}-3 x^{2}+y=-18 x+29 \\ -3 x^{2}-y=18 x-25\end{gathered}$
10. $\begin{gathered}y=-x^{2}-6 x-10 \\ 3 x^{2}+18 x+22=y\end{gathered}$
11. $\begin{aligned}-10 x^{2}+y & =-80 x+155 \\ 5 x^{2}+y & =40 x-85\end{aligned}$

CYU Reflection: How far can you go: basic, intermediate, or advanced?
Rate your mastery level!
How confident are you with the skills this CYU covered? Circle the


