

Name

Key

Date

Pd

3.5 Solving Non-Linear Systems DAY TWO CYU

 Use when you get it right all by yourself**S** Use when you did it all by yourself, but made a silly mistake**H** Use when you could do it alone with a little help from teacher or peer**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	ADVANCED
Solving Systems by graphing	7, 8	9, 10	3 - 6
Solving Systems by substitution	3, 4	5, 6	
Solving Systems by elimination		3, 4	5, 6
Checking solutions		1, 2	

State if the point given is a solution to the system of equations.

$$1. \begin{cases} x^2 + y^2 - 7x + 3y - 28 = 0 \\ -2x + y - 4 = 0 \end{cases}$$

 $(3, -5)$

$$2. \begin{cases} -2x^2 + 2y^2 - 2x + 8y + 5 = 0 \\ -x^2 + 26y^2 - 2x + 104y + 77 = 0 \end{cases}$$

 $(-1, -3)$

NO

Yes

Solve each system of equations. You choose which method between graphing, substitution, or elimination. Show all your work to earn full credit.

$$3. \begin{cases} 3x^2 + 2y^2 - 54y - 143 = 0 \\ x - 3y - 3 = 0 \end{cases}$$

 $(9, 2)$ & $(-3, -2)$

$$4. \begin{cases} x^2 + 2y^2 - 11x - 3y + 31 = 0 \\ -x + y + 4 = 0 \end{cases}$$

 $(5, 1)$

5. $x^2 + y^2 + x + 3y + 2 = 0$
 $x - y = 0$

$(-1, -1)$

6. $-x^2 - 3x + y = 0$
 $-12x^2 - 3x + y = 0$

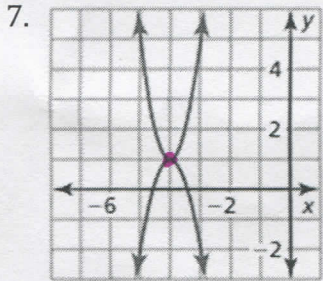
$(0, 0)$

Key

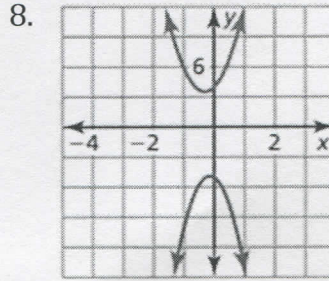
$(-1, -1)$

$(-2, -8)$

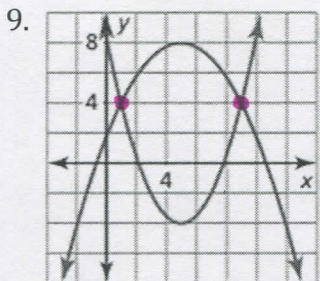
Solve the system of nonlinear equations using the graph provided.



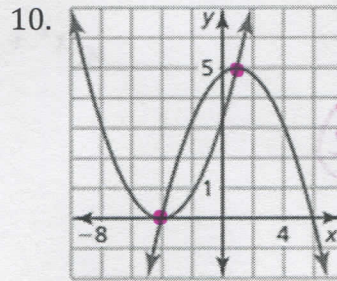
$(-4, 1)$



no solution



$(1, 4) \neq (9, 4)$



$(-4, 0) \neq (1, 5)$

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

