Name _____ Class _____ Date _____

1-2 **Homework**

Solve by Graphing.
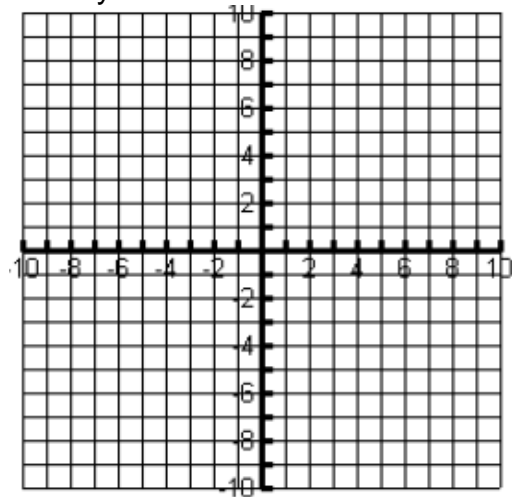
$3x - 6y = 12$ $2x - 4y = 8$	$x + y = 2$ $y = -2x - 1$
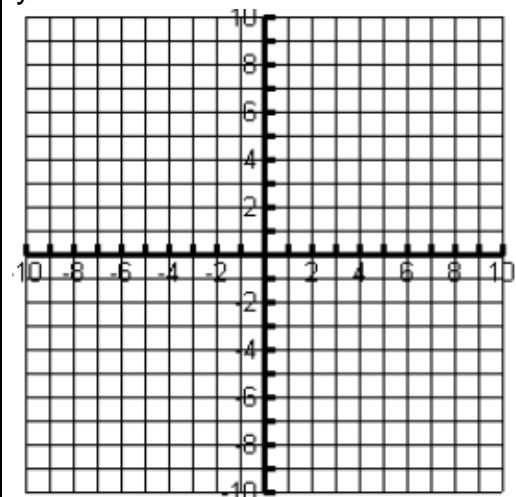
Solve by Substitution.

$2x - 3y = -1$ $y = x - 1$	$y = -3x + 5$ $5x - 4y = -3$

Solve by Elimination.

$5x + y = 9$ $10x - 7y = -18$	$-3x + 7y = -16$ $-9x + 5y = 16$

For each question, define your variables, write a system of equations, and solve using any method. Please use a separate sheet of paper to show all work.

1. The length of a rectangle is 3 cm more than twice the width. The perimeter of the rectangle is 42 cm. Find the dimensions of the rectangle.

2. Suppose you have $200 in your account and you save $10 dollars each week. Your friend has $110 in their account and starts saving $15 each week. When will your account balances be the same?

3. The difference of two numbers is 40. Their sum is 66. Find the numbers.

4. A youth group and their leaders visited Mammoth Cave. Two adults and 5 students in one van paid $77. Two adults and 7 students in another van paid $95. Find the adult price and student price of the tour.

5. A winter clothing store had a sale and Cory bought two pairs of gloves and four hats for $43. Mark bought two pairs of gloves and two hats for $30. How much did each pair of gloves and each hat cost?

6. At a recreation and sports facility, 3 members and 3 nonmembers pay a total of $180 to take a yoga class. A group of 5 members and 3 nonmembers pay $210 to take the same class. How much does it cost each member and nonmember to take the yoga class?

7. Joey has $5.75 made up of all dimes and quarters. If Joey has 38 coins, how many of each coin does he have?