

# Systems of Equations: Substitution Method

Name \_\_\_\_\_

Solve each system of equations using the substitution method.

**1) Solve for the easiest variable.**

**2) Substitute that answer into the other equation. Solve.**

**3) Substitute the answer from step 2 into an equation and solve for the remaining variable.**

**4) Write the solution as an (x,y).**

1.  $2x - 3y = 4$   
 $x + 4y = -9$

( , )

2.  $y = 6x$   
 $x + y = 28$

( , )

3.  $x = y + 2$   
 $2y + x = 17$

( , )

4.  $x - y = 6$   
 $2x + y = 0$

( , )

5.  $2x + y = 2$   
 $8x + 5y = 12$

( , )

6.  $5x + y = -12$   
 $4x - y = 3$

( , )

**Write a system of equations and solve. SHOW ALL WORK!!! Do not forget to define your variables!**

7. The sum of two numbers is 25 and their difference is 7. Find the numbers.

x=

y=

( , )

8. At Jose's Sporting Goods Store two customers purchase tennis balls and racquets. The first buys 6 tennis balls and 1 racquet for \$23.00. The second purchases 12 tennis balls and 3 racquets for \$66.00. How much is one tennis racquet and one tennis ball?

x=

y=

( , )

9. Ann and Jan bowl regularly at Strike 'n Spares Lanes. Last Tuesday Ann and Jan had a combined score of 425. Ann's score was (equaled) 25 more than Jan's score. Find their scores.

x=

y=

( , )

10. Cory and Stan have been saving money for 6 months. Together their money equals \$150. But separately, Cory has (equals) \$24 more than twice as much as Stan. How much money does each boy have?

x=

y=

( , )