

# Systems of Equations Quiz Review

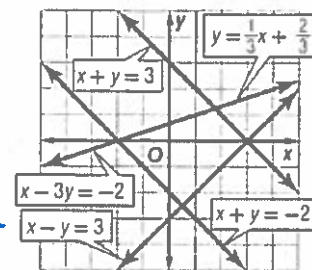
Using the graph at right, decide if the following systems of equations are inconsistent or consistent. If it's consistent, decide if the system is independent or dependent.

1.  $x + y = 3$   
 $x - y = 3$   
*consistent, independent*

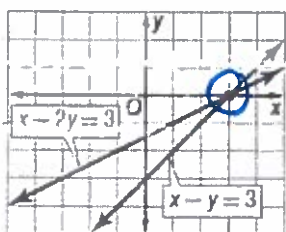
3.  $x - 3y = -2$   
 $y = \frac{1}{3}x + \frac{2}{3}$   
*consistent dependent*

2.  $x + y = 3$   
 $x + y = -2$   
*inconsistent*

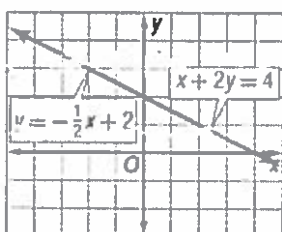
4.  $x + y = 3$   
 $x - 3y = -2$   
*consistent independent*



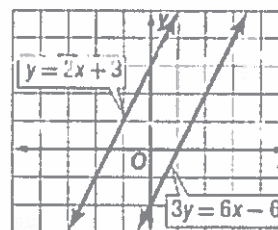
State how many solutions each system of equations has. If it has only one, name it.



*one solution  
 (3, 0)*



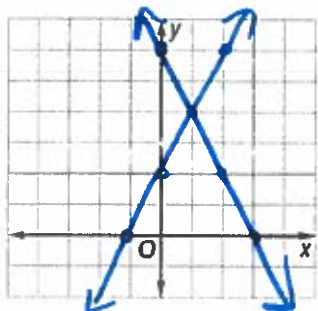
*infinite solutions*



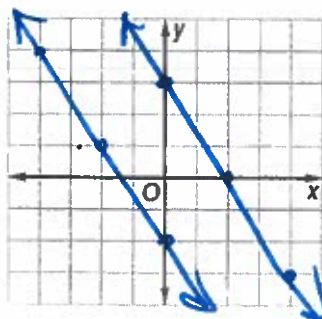
*no solutions*

Graph the following systems of equations. State how many solutions each system has. Then, if it has only one, name it.

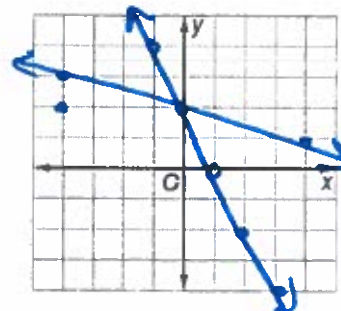
8.  $y = -2x + 6$   
 $y = 2x + 2$   
*one solution  
 (1, 4)*



9.  $y = -\frac{3}{2}x + 3$   
 $y = -\frac{3}{2}x - 2$   
*no solutions*



10.  $y = -2x + 2$   
 $y = -\frac{1}{4}x + 2$   
*one solution  
 (0, 2)*



Solve the following systems of equations using substitution. SHOW ALL STEPS, and be sure your final answer is written as a coordinate.

11.  $x = 2y$   
 $y = x - 2$   
 $x = 2(2)$   
 $x = 4$   
 $y = 2$   
*(4, 2)*

12.  $y = -4x$   
 $2y + x = -7$   
 $2(-4x) + x = -7$   
 $-8x + x = -7$   
 $-7x = -7$   
 $x = 1$   
 $y = -4(1)$   
 $y = -4$   
*(1, -4)*

13.  $x = 5y - 6$   
 $x + 2y = 8$   
 $5y - 6 + 2y = 8$   
 $7y - 6 = 8$   
 $7y = 14$   
 $y = 2$   
 $x = 5(2) - 6$   
 $x = 10 - 6$   
 $x = 4$   
*(2, 4)*