Name_____

Solving by Substitution

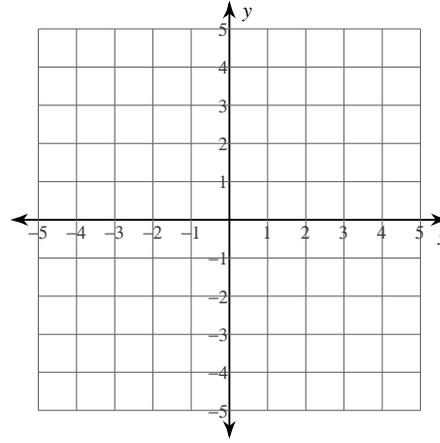Date_____ Period_____

Solve each system by graphing.

1) $-16 = 7x + 4y$
   $x = 2 - 2y$
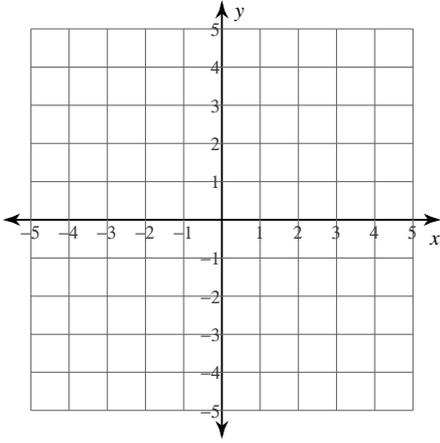
2) $-x - 3y = -3$
   $0 = 6x + 12 + 3y$

3) $-y + 6x + 2 = 0$
   $3 + y = x$
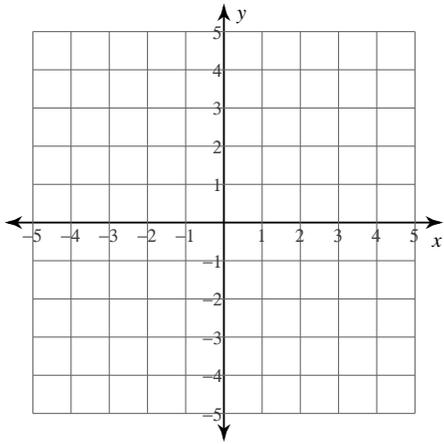
4) $y + 2 = 4x$
   $-3 = -y - x$
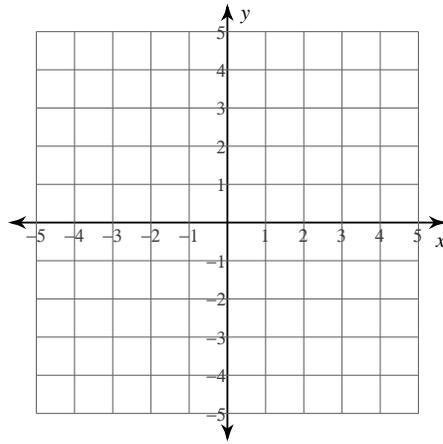
Solve each system by substitution.

5) $y = 6x + 17$
   $y = -2x - 7$

6) $y = -6x - 2$
   $y = -8x$

7) $y = 4x + 17$
   $y = -2x - 7$

8) $y = -3x + 15$
   $y = -2x + 8$

9) $y = -3x + 16$
   $y = 3x - 20$

10) $3x + 7y = 16$
    $y = -5x + 16$

11) $-7x - 8y = 8$
    $y = -4x + 24$

12) $y = 4x + 8$
    $-8x + 6y = 16$

13) $-x - 3y = 5$
    $y = 2x + 10$

14) $y = -2x - 8$
    $-x - y = 5$

15) $-4x + 2y = 14$
    $x + y = 1$

16) $x + 6y = 14$
    $-8x - y = -18$

17) $-7x + y = -11$
    $7x - 7y = -7$

18) $x + y = 8$
    $-3x + 4y = -10$

19) $6x - 8y = -10$
    $x + y = 10$

20) $8x - 6y = -14$
    $6x - 2y = 2$

21) $5x - 2y = 14$
    $3x - 7y = 20$

22) $6x - 2y = 16$
    $-6x - 8y = 4$

23) $2x - 2y = 8$
    $-7x - 5y = 20$

24) $3x + 6y = 21$
    $y = 6$

Answers to Solving by Substitution (ID: 1)

1) $(-4, 3)$ 2) $(-3, 2)$ 3) $(-1, -4)$ 4) $(1, 2)$
5) $(-3, -1)$ 6) $(1, -8)$ 7) $(-4, 1)$ 8) $(7, -6)$
9) $(6, -2)$ 10) $(3, 1)$ 11) $(8, -8)$ 12) $(-2, 0)$
13) $(-5, 0)$ 14) $(-3, -2)$ 15) $(-2, 3)$ 16) $(2, 2)$
17) $(2, 3)$ 18) $(6, 2)$ 19) $(5, 5)$ 20) $(2, 5)$
21) $(2, -2)$ 22) $(2, -2)$ 23) $(0, -4)$ 24) $(-5, 6)$