Algebraically

Name_____

Solving Systems of Linear Equations

Date_____ Period____

Solve each system by substitution.

1) $y = -3x + 7$
$-x - 6y = -8$

2) $-x + 2y = 11$
$y = -4x - 17$

3) $x + 2y = -10$
$-5x + 8y = 14$

4) $-8x - y = 12$
$y = -4$

5) $-8x + 6y = -24$
$4x + y = 12$

6) $x + 2y = -5$
$-2x - 5y = 14$

7) $2x + 2y = -12$
$-3x - 4y = 23$

8) $-2x - 3y = 6$
$-4x + 7y = 12$

9) $-5x + 6y = -22$
$-4x - 8y = 8$

10) $-6x + 7y = -9$
$-6x - 2y = 18$

Solve each system by elimination.

11) $-4x + 4y = -16$
$4x - 5y = 24$

12) $-x - y = 7$
$2x + y = -8$

13) $-10x + 8y = -28$
$x + 16y = -14$

14) $5x + 8y = 2$
$15x + 6y = 24$

15) $-5x + 2y = -9$
$-4x + 12y = 24$

16) $6x - y = -15$
$-12x + 9y = 9$

17) $-5x - 5y = -5$
$-2x + 8y = 18$

18) $-5x + 10y = -15$
$-3x + 7y = -10$

Algebraically

Name Key

Solving Systems of Linear Equations

Date _____ Period ____

Solve each system by substitution.

1) $y = -3x + 7$
$-x - 6y = -8$
(2, 1)

2) $-x + 2y = 11$
$y = -4x - 17$
(−5, 3)

3) $x + 2y = -10$
$-5x + 8y = 14$
(−6, −2)

4) $-8x - y = 12$
$y = -4$
(−1, −4)

5) $-8x + 6y = -24$
$4x + y = 12$
(3, 0)

6) $x + 2y = -5$
$-2x - 5y = 14$
(3, −4)

7) $2x + 2y = -12$
$-3x - 4y = 23$
(−1, −5)

8) $-2x - 3y = 6$
$-4x + 7y = 12$
(−3, 0)

9) $-5x + 6y = -22$
$-4x - 8y = 8$
(2, −2)

10) $-6x + 7y = -9$
$-6x - 2y = 18$
(−2, −3)

Solve each system by elimination.

11) $-4x + 4y = -16$
$4x - 5y = 24$

$(-4, -8)$

12) $-x - y = 7$
$2x + y = -8$

$(-1, -6)$

13) $-10x + 8y = -28$
$x + 16y = -14$

$(2, -1)$

14) $5x + 8y = 2$
$15x + 6y = 24$

$(2, -1)$

15) $-5x + 2y = -9$
$-4x + 12y = 24$

$(3, 3)$

16) $6x - y = -15$
$-12x + 9y = 9$

$(-3, -3)$

17) $-5x - 5y = -5$
$-2x + 8y = 18$

$(-1, 2)$

18) $-5x + 10y = -15$
$-3x + 7y = -10$

$(1, -1)$