Math 1   Name_____

Unit 3.2 Example Solving systems using elimination

Solve each system by elimination.

1) $3x - 4y = 14$
   $-3x + y = -8$

2) $6x + 3y = -6$
   $4x - 3y = -4$

3) $4x - 9y = -6$
   $4x - 9y = -6$

4) $-2x - 5y = 1$
   $-10x - 5y = 25$

5) $7x + 7y = -28$
   $4x - y = 4$

6) $-9x + 4y = -23$
   $4x - 2y = 8$

7) $100x + 10y = 1$
   $60x + 6y = 6$

8) $10x + 6y = -24$
   $-8x - 9y = -6$

9) $3y - 3x - 24 = 0$
   $6y = -12 - 6x$

10) $27 + 12y = 15x$
    $9 - 3x = -6y$

11) $6 + 5x = 7y$
    $0 = 4 + 2x - 2y$

12) $14 - 3x = 2y$
    $0 = -5y + 10x$

13) $-7y - 9 - 2x = 0$
    $5x = -4y + 18$

14) $-26 = -4y - 9x$
    $3y + 8 - 7x = 0$

15) $x + \dfrac{2}{3}y = \dfrac{1}{3}$
    $0 = -2 + 3x + 2y$

16) $9y + 6 = -4x$
    $7y + 22 = -6x$

17) $\dfrac{1}{2}x + \dfrac{7}{4}y = 1$
    $0 = 8y - 29 + 5x$

18) $3x = -19 - 8y$
    $-7y - 18 = 4x$

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Unit 3.2 Example Solving systems using elimination

Solve each system by elimination.

1) $3x - 4y = 14$
$-3x + y = -8$

$(2, -2)$

2) $6x + 3y = -6$
$4x - 3y = -4$

$(-1, 0)$

3) $4x - 9y = -6$
$4x - 9y = -6$

Infinite number of solutions

4) $-2x - 5y = 1$
$-10x - 5y = 25$

$(-3, 1)$

5) $7x + 7y = -28$
$4x - y = 4$

$(0, -4)$

6) $-9x + 4y = -23$
$4x - 2y = 8$

$(7, 10)$

7) $100x + 10y = 1$
$60x + 6y = 6$

No solution

8) $10x + 6y = -24$
$-8x - 9y = -6$

$(-6, 6)$

9) $3y - 3x - 24 = 0$
   $6y = -12 - 6x$

   $(-5, 3)$

10) $27 + 12y = 15x$
    $9 - 3x = -6y$

    $(1, -1)$

11) $6 + 5x = 7y$
    $0 = 4 + 2x - 2y$

    $(-4, -2)$

12) $14 - 3x = 2y$
    $0 = -5y + 10x$

    $(2, 4)$

13) $-7y - 9 - 2x = 0$
    $5x = -4y + 18$

    $(6, -3)$

14) $-26 = -4y - 9x$
    $3y + 8 - 7x = 0$

    $(2, 2)$

15) $x + \dfrac{2}{3}y = \dfrac{1}{3}$
    $0 = -2 + 3x + 2y$

    No solution

16) $9y + 6 = -4x$
    $7y + 22 = -6x$

    $(-6, 2)$

17) $\dfrac{1}{2}x + \dfrac{7}{4}y = 1$
    $0 = 8y - 29 + 5x$

    $(9, -2)$

18) $3x = -19 - 8y$
    $-7y - 18 = 4x$

    $(-1, -2)$