

## Assignment

Solve each system by elimination.

$$\begin{aligned} 1) \quad & 10x + 9y = 0 \\ & 8x + 18y = 0 \end{aligned}$$

$$\begin{aligned} 2) \quad & -7x + 14y = 0 \\ & -6x - 7y = 0 \end{aligned}$$

$$\begin{aligned} 3) \quad & 2x - 9y = -12 \\ & 3x + 18y = -18 \end{aligned}$$

$$\begin{aligned} 4) \quad & 20x + 7y = -29 \\ & -10x - 5y = 25 \end{aligned}$$

$$\begin{aligned} 5) \quad & 16x - 12y = 8 \\ & -4x + 3y = -2 \end{aligned}$$

$$\begin{aligned} 6) \quad & -16x + 20y = -4 \\ & -8x + 10y = -4 \end{aligned}$$

$$\begin{aligned} 7) \quad & -2x + 2y = 0 \\ & 6x - 6y = 0 \end{aligned}$$

$$\begin{aligned} 8) \quad & -14x + 6y = 24 \\ & -7x + 3y = 12 \end{aligned}$$

$$\begin{aligned} 9) \quad & -9x + 3y = 12 \\ & -3x + y = 4 \end{aligned}$$

$$\begin{aligned} 10) \quad & 6x + 10y = -10 \\ & -3x - 6y = 0 \end{aligned}$$

$$\begin{aligned} 11) \quad & 5x + 3y = -4 \\ & -9x - 12y = 27 \end{aligned}$$

$$\begin{aligned} 12) \quad & 6x + y = -20 \\ & -10x + 6y = 18 \end{aligned}$$

$$\begin{aligned} 13) \quad & -12x + 6y = -30 \\ & -3x + 5y = 24 \end{aligned}$$

$$\begin{aligned} 14) \quad & -5x + 3y = -10 \\ & -6x + 12y = 30 \end{aligned}$$

$$\begin{aligned} 15) \quad & -10x - 3y = -3 \\ & -6x - y = -1 \end{aligned}$$

$$\begin{aligned} 16) \quad & -3x - 2y = 17 \\ & -4x + y = 19 \end{aligned}$$

$$\begin{aligned} 17) \quad & 9x - 3y = 27 \\ & -x + 6y = 14 \end{aligned}$$

$$\begin{aligned} 18) \quad & 2x - 8y = 10 \\ & -7x - 2y = -5 \end{aligned}$$

$$\begin{aligned} 19) \quad & -5x - 6y = 12 \\ & -3x + 3y = -6 \end{aligned}$$

$$\begin{aligned} 20) \quad & x + 8y = -1 \\ & 6x - 16y = -6 \end{aligned}$$

$$\begin{aligned} 21) \quad & -4x - 20y = 28 \\ & -x - 10y = 12 \end{aligned}$$

$$\begin{aligned} 22) \quad & -2x + 9y = -16 \\ & 12x - 3y = -6 \end{aligned}$$

$$\begin{aligned} 23) \quad & 5x - 3y = 13 \\ & 2x + 9y = -5 \end{aligned}$$

$$\begin{aligned} 24) \quad & 2x + 4y = -4 \\ & -10x - 8y = -16 \end{aligned}$$



## Answers to Assignment (ID: 1)

- |                                 |                                 |                                 |                |
|---------------------------------|---------------------------------|---------------------------------|----------------|
| 1) $(0, 0)$                     | 2) $(0, 0)$                     | 3) $(-6, 0)$                    | 4) $(1, -7)$   |
| 5) Infinite number of solutions | 6) No solution                  | 7) Infinite number of solutions |                |
| 8) Infinite number of solutions | 9) Infinite number of solutions | 10) $(-10, 5)$                  |                |
| 11) $(1, -3)$                   | 12) $(-3, -2)$                  | 13) $(7, 9)$                    | 14) $(5, 5)$   |
| 15) $(0, 1)$                    | 16) $(-5, -1)$                  | 17) $(4, 3)$                    | 18) $(1, -1)$  |
| 19) $(0, -2)$                   | 20) $(-1, 0)$                   | 21) $(-2, -1)$                  | 22) $(-1, -2)$ |
| 23) $(2, -1)$                   | 24) $(4, -3)$                   |                                 |                |



## Assignment

Solve each system by elimination.

$$\begin{aligned} 1) \quad & 4x + 20y = -24 \\ & 5x + 10y = 15 \end{aligned}$$

$$\begin{aligned} 2) \quad & 20x + 9y = 13 \\ & -10x + 3y = -29 \end{aligned}$$

$$\begin{aligned} 3) \quad & -3x + 10y = 2 \\ & -5x + 5y = -20 \end{aligned}$$

$$\begin{aligned} 4) \quad & x + 4y = -6 \\ & 5x - 8y = 26 \end{aligned}$$

$$\begin{aligned} 5) \quad & 20x - 7y = -6 \\ & -10x + 3y = 4 \end{aligned}$$

$$\begin{aligned} 6) \quad & 3x - 4y = -11 \\ & -6x + 9y = 21 \end{aligned}$$

$$\begin{aligned} 7) \quad & -7x + 8y = -17 \\ & -9x + 2y = 3 \end{aligned}$$

$$\begin{aligned} 8) \quad & -18x + 5y = 3 \\ & 9x - 8y = 15 \end{aligned}$$

$$\begin{aligned} 9) \quad & -2x + 9y = 24 \\ & -8x - 10y = 4 \end{aligned}$$

$$\begin{aligned} 10) \quad & 8x - 10y = -10 \\ & 5x + 5y = 5 \end{aligned}$$

$$\begin{aligned} 11) \quad & 5x + 12y = -24 \\ & -6x - 4y = 8 \end{aligned}$$

$$\begin{aligned} 12) \quad & -2x - 5y = -9 \\ & -6x - 15y = -21 \end{aligned}$$

$$\begin{aligned} 13) \quad & -15x + 5y = -30 \\ & -3x + y = -6 \end{aligned}$$

$$\begin{aligned} 14) \quad & -3x + 18y = 15 \\ & -x + 6y = 6 \end{aligned}$$

$$\begin{aligned} 15) \quad & -16x - 16y = 0 \\ & 8x + 8y = 0 \end{aligned}$$

$$\begin{aligned} 16) \quad & -x + 8y = -26 \\ & -10x - 7y = 1 \end{aligned}$$

$$\begin{aligned} 17) \quad & -3x - 14y = 27 \\ & 4x + 7y = -1 \end{aligned}$$

$$\begin{aligned} 18) \quad & 7x - y = 8 \\ & -8x - 7y = -1 \end{aligned}$$

$$\begin{aligned} 19) \quad & 7x + 3y = 8 \\ & 5x + y = 0 \end{aligned}$$

$$\begin{aligned} 20) \quad & -15x - 3y = 21 \\ & 5x + 4y = 17 \end{aligned}$$

$$\begin{aligned} 21) \quad & 4x + 9y = -15 \\ & -3x + 3y = -18 \end{aligned}$$

$$\begin{aligned} 22) \quad & -4x + 2y = 8 \\ & 12x - 7y = -30 \end{aligned}$$

$$\begin{aligned} 23) \quad & -5x + 5y = -20 \\ & -3x + 15y = 12 \end{aligned}$$

$$\begin{aligned} 24) \quad & -2x + 7y = -21 \\ & -x - y = 12 \end{aligned}$$



## Answers to Assignment (ID: 2)

1)  $(9, -3)$

2)  $(2, -3)$

3)  $(6, 2)$

4)  $(2, -2)$

5)  $(-1, -2)$

6)  $(-5, -1)$

7)  $(-1, -3)$

8)  $(-1, -3)$

9)  $(-3, 2)$

10)  $(0, 1)$

11)  $(0, -2)$

12) No solution

13) Infinite number of solutions

14) No solution

15) Infinite number of solutions

16)  $(2, -3)$

17)  $(5, -3)$

18)  $(1, -1)$

19)  $(-1, 5)$

20)  $(-3, 8)$

21)  $(3, -3)$

22)  $(1, 6)$

23)  $(6, 2)$

24)  $(-7, -5)$



## Assignment

Solve each system by elimination.

$$\begin{aligned} 1) \quad & -x - 9y = 2 \\ & -9x - 8y = 18 \end{aligned}$$

$$\begin{aligned} 2) \quad & 6x - y = 1 \\ & -8x + 11y = -11 \end{aligned}$$

$$\begin{aligned} 3) \quad & 6x + 5y = -25 \\ & 12x + 6y = -30 \end{aligned}$$

$$\begin{aligned} 4) \quad & 7x - 6y = -25 \\ & -4x + 12y = -20 \end{aligned}$$

$$\begin{aligned} 5) \quad & 7x + y = 16 \\ & 10x - 5y = 10 \end{aligned}$$

$$\begin{aligned} 6) \quad & 9x + 14y = -18 \\ & x + 7y = -2 \end{aligned}$$

$$\begin{aligned} 7) \quad & 2x + 4y = 30 \\ & 7x - 12y = 1 \end{aligned}$$

$$\begin{aligned} 8) \quad & -8x - y = 5 \\ & 9x - 2y = -15 \end{aligned}$$

$$\begin{aligned} 9) \quad & -6x + 2y = -16 \\ & -2x - 6y = -12 \end{aligned}$$

$$\begin{aligned} 10) \quad & 9x + 6y = 30 \\ & 8x + 12y = 20 \end{aligned}$$

$$\begin{aligned} 11) \quad & -4x + 10y = 20 \\ & x - 20y = 30 \end{aligned}$$

$$\begin{aligned} 12) \quad & -3x - 7y = 9 \\ & 12x + 9y = 21 \end{aligned}$$

$$\begin{aligned} 13) \quad & -2x - 5y = -8 \\ & -4x + y = 28 \end{aligned}$$

$$\begin{aligned} 14) \quad & 8x - 8y = 8 \\ & -2x + 4y = 6 \end{aligned}$$

$$\begin{aligned} 15) \quad & 5x - 6y = 14 \\ & -2x + 3y = -8 \end{aligned}$$

$$\begin{aligned} 16) \quad & -14x - 10y = -10 \\ & -7x + 6y = 6 \end{aligned}$$

$$\begin{aligned} 17) \quad & -x - 6y = -15 \\ & -2x + 2y = 26 \end{aligned}$$

$$\begin{aligned} 18) \quad & -x + 18y = -3 \\ & 5x - 9y = 15 \end{aligned}$$

$$\begin{aligned} 19) \quad & -14x - 8y = -24 \\ & -7x - 4y = -12 \end{aligned}$$

$$\begin{aligned} 20) \quad & -8x + 20y = 28 \\ & 4x - 10y = -14 \end{aligned}$$

$$\begin{aligned} 21) \quad & 18x - 20y = 4 \\ & 9x - 10y = 2 \end{aligned}$$

$$\begin{aligned} 22) \quad & 16x + 18y = -8 \\ & -8x - 9y = 4 \end{aligned}$$

$$\begin{aligned} 23) \quad & -20x + 10y = -20 \\ & -10x - 3y = -10 \end{aligned}$$

$$\begin{aligned} 24) \quad & -8x - 9y = 27 \\ & 10x + 18y = 0 \end{aligned}$$



## Answers to Assignment (ID: 3)

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



## Assignment

Solve each system by elimination.

$$\begin{aligned} 1) \quad x - 8y &= 3 \\ 3x + 2y &= 9 \end{aligned}$$

$$\begin{aligned} 2) \quad -5x - y &= 3 \\ 10x + 3y &= -4 \end{aligned}$$

$$\begin{aligned} 3) \quad 2x + y &= 12 \\ -4x + 3y &= 16 \end{aligned}$$

$$\begin{aligned} 4) \quad -6x + 7y &= 7 \\ -12x - 9y &= -9 \end{aligned}$$

$$\begin{aligned} 5) \quad 2x - y &= -2 \\ -6x + 2y &= -4 \end{aligned}$$

$$\begin{aligned} 6) \quad -2x + 2y &= -14 \\ 7x + 10y &= 15 \end{aligned}$$

$$\begin{aligned} 7) \quad 2x - 7y &= -27 \\ -10x - y &= 27 \end{aligned}$$

$$\begin{aligned} 8) \quad 2x - y &= -7 \\ -6x + 2y &= 30 \end{aligned}$$

$$\begin{aligned} 9) \quad -6x + 5y &= -19 \\ 2x - 15y &= -7 \end{aligned}$$

$$\begin{aligned} 10) \quad -6x - 8y &= 30 \\ x - y &= -5 \end{aligned}$$

$$\begin{aligned} 11) \quad -4x + 4y &= 8 \\ 8x - 5y &= -28 \end{aligned}$$

$$\begin{aligned} 12) \quad 3x + 6y &= -12 \\ -7x - 3y &= -5 \end{aligned}$$

$$\begin{aligned} 13) \quad 4x + 8y &= -20 \\ 8x + 4y &= -28 \end{aligned}$$

$$\begin{aligned} 14) \quad 10x - 9y &= 30 \\ -7x - 18y &= -21 \end{aligned}$$

$$\begin{aligned} 15) \quad -4x - 12y &= 12 \\ x - 3y &= -3 \end{aligned}$$

$$\begin{aligned} 16) \quad 8x - 12y &= 0 \\ -x + 4y &= 15 \end{aligned}$$

$$\begin{aligned} 17) \quad 10x + 7y &= 10 \\ x + 9y &= 1 \end{aligned}$$

$$\begin{aligned} 18) \quad -9x - 3y &= 3 \\ -18x + 6y &= 30 \end{aligned}$$

$$\begin{aligned} 19) \quad 6x + 7y &= 10 \\ -8x - 14y &= -4 \end{aligned}$$

$$\begin{aligned} 20) \quad 8x + 15y &= -29 \\ -6x + 5y &= -27 \end{aligned}$$

$$\begin{aligned} 21) \quad -2x + 6y &= 26 \\ 12x - 7y &= -11 \end{aligned}$$

$$\begin{aligned} 22) \quad -6x + 2y &= 22 \\ 3x - 8y &= -4 \end{aligned}$$

$$\begin{aligned} 23) \quad -8x + 4y &= 12 \\ -6x + 8y &= -6 \end{aligned}$$

$$\begin{aligned} 24) \quad 6x + 2y &= 20 \\ 2x + 4y &= -20 \end{aligned}$$



## Answers to Assignment (ID: 4)

1) (3, 0)

5) (4, 10)

9) (4, 1)

13) (-3, -1)

17) (1, 0)

21) (2, 5)

2) (-1, 2)

6) (5, -2)

10) (-5, 0)

14) (3, 0)

18) (-1, 2)

22) (-4, -1)

3) (2, 8)

7) (-3, 3)

11) (-6, -4)

15) (-3, 0)

19) (4, -2)

23) (-3, -3)

4) (0, 1)

8) (-8, -9)

12) (2, -3)

16) (9, 6)

20) (2, -3)

24) (6, -8)





## Assignment

Solve each system by elimination.

$$\begin{aligned} 1) \quad & -9x - 4y = 7 \\ & -18x - 8y = 14 \end{aligned}$$

$$\begin{aligned} 2) \quad & -14x + 6y = 2 \\ & 7x - 3y = -1 \end{aligned}$$

$$\begin{aligned} 3) \quad & 3x - 3y = 0 \\ & -9x + 9y = 9 \end{aligned}$$

$$\begin{aligned} 4) \quad & -10x - 10y = -20 \\ & 2x + 2y = 2 \end{aligned}$$

$$\begin{aligned} 5) \quad & -2x - 16y = -30 \\ & 5x - 8y = 27 \end{aligned}$$

$$\begin{aligned} 6) \quad & 12x + 2y = 10 \\ & 2x + y = 5 \end{aligned}$$

$$\begin{aligned} 7) \quad & 18x - y = 15 \\ & 9x - 2y = 3 \end{aligned}$$

$$\begin{aligned} 8) \quad & -9x + 11y = -13 \\ & 6x - y = -4 \end{aligned}$$

$$\begin{aligned} 9) \quad & 9x - 6y = -6 \\ & 6x + 12y = 12 \end{aligned}$$

$$\begin{aligned} 10) \quad & -2x - 10y = -24 \\ & 8x + 2y = -18 \end{aligned}$$

$$\begin{aligned} 11) \quad & -8x - 6y = -14 \\ & 4x + 4y = 0 \end{aligned}$$

$$\begin{aligned} 12) \quad & -5x + 3y = 6 \\ & 10x - 5y = -20 \end{aligned}$$

$$\begin{aligned} 13) \quad & -4x + 8y = -16 \\ & -x - 16y = -22 \end{aligned}$$

$$\begin{aligned} 14) \quad & -6x + 7y = 0 \\ & 12x + 5y = 0 \end{aligned}$$

$$\begin{aligned} 15) \quad & 5x - 10y = 0 \\ & -10x + 4y = -16 \end{aligned}$$

$$\begin{aligned} 16) \quad & -9x - y = 1 \\ & 10x + 2y = 6 \end{aligned}$$

$$\begin{aligned} 17) \quad & -4x + 2y = 22 \\ & -8x + 6y = 30 \end{aligned}$$

$$\begin{aligned} 18) \quad & -10x + 18y = 8 \\ & -7x + 9y = 2 \end{aligned}$$

$$\begin{aligned} 19) \quad & -20x + 4y = -8 \\ & 10x - 7y = 14 \end{aligned}$$

$$\begin{aligned} 20) \quad & 3x + 18y = 15 \\ & -4x - 9y = -5 \end{aligned}$$

$$\begin{aligned} 21) \quad & -5x + y = 2 \\ & 6x - 3y = 12 \end{aligned}$$

$$\begin{aligned} 22) \quad & -6x + 4y = -30 \\ & 3x - 7y = 0 \end{aligned}$$

$$\begin{aligned} 23) \quad & 9x + 8y = -27 \\ & -10x - 16y = 30 \end{aligned}$$

$$\begin{aligned} 24) \quad & 20x + 7y = -19 \\ & -10x + y = 23 \end{aligned}$$



## Answers to Assignment (ID: 5)

- |                                 |                                 |                |             |
|---------------------------------|---------------------------------|----------------|-------------|
| 1) Infinite number of solutions | 2) Infinite number of solutions | 3) No solution |             |
| 4) No solution                  | 5) (7, 1)                       | 6) (0, 5)      | 7) (1, 3)   |
| 8) (-1, -2)                     | 9) (0, 1)                       | 10) (-3, 3)    | 11) (7, -7) |
| 12) (-6, -8)                    | 13) (6, 1)                      | 14) (0, 0)     | 15) (2, 1)  |
| 16) (-1, 8)                     | 17) (-9, -7)                    | 18) (1, 1)     | 19) (0, -2) |
| 20) (-1, 1)                     | 21) (-2, -8)                    | 22) (7, 3)     | 23) (-3, 0) |
| 24) (-2, 3)                     |                                 |                |             |



## Assignment

Solve each system by elimination.

$$\begin{aligned} 1) \quad & 4x + 2y = 2 \\ & -8x - y = -13 \end{aligned}$$

$$\begin{aligned} 2) \quad & 8x - 4y = -12 \\ & x - 10y = -30 \end{aligned}$$

$$\begin{aligned} 3) \quad & -10x + 6y = 4 \\ & -5x + 5y = 0 \end{aligned}$$

$$\begin{aligned} 4) \quad & -6x + 4y = -2 \\ & -12x + 6y = 12 \end{aligned}$$

$$\begin{aligned} 5) \quad & 9x + 14y = 16 \\ & 7x + 7y = 28 \end{aligned}$$

$$\begin{aligned} 6) \quad & 9x - 4y = 10 \\ & 18x - 3y = -15 \end{aligned}$$

$$\begin{aligned} 7) \quad & 6x + 7y = 0 \\ & -2x + 14y = 0 \end{aligned}$$

$$\begin{aligned} 8) \quad & 9x + 2y = -13 \\ & 18x + 4y = -26 \end{aligned}$$

$$\begin{aligned} 9) \quad & 3x - 3y = 12 \\ & -6x + 6y = -18 \end{aligned}$$

$$\begin{aligned} 10) \quad & 10x + 10y = 0 \\ & 20x + 20y = -20 \end{aligned}$$

$$\begin{aligned} 11) \quad & 6x - 10y = 12 \\ & 12x - 20y = 12 \end{aligned}$$

$$\begin{aligned} 12) \quad & 10x + y = 20 \\ & -3x + 3y = 27 \end{aligned}$$

$$\begin{aligned} 13) \quad & 10x - 2y = -28 \\ & -20x + y = 29 \end{aligned}$$

$$\begin{aligned} 14) \quad & 16x - 3y = -1 \\ & -8x - 4y = 28 \end{aligned}$$

$$\begin{aligned} 15) \quad & -8x + 6y = -4 \\ & 3x + 12y = 30 \end{aligned}$$

$$\begin{aligned} 16) \quad & -4x - 5y = 22 \\ & 12x - 6y = -24 \end{aligned}$$

$$\begin{aligned} 17) \quad & -7x - 2y = 2 \\ & 14x + 8y = 20 \end{aligned}$$

$$\begin{aligned} 18) \quad & 9x - 6y = 3 \\ & -3x - 3y = 24 \end{aligned}$$

$$\begin{aligned} 19) \quad & -10x + 5y = 15 \\ & 5x - 6y = -25 \end{aligned}$$

$$\begin{aligned} 20) \quad & 7x - 3y = 27 \\ & -x + 6y = -15 \end{aligned}$$

$$\begin{aligned} 21) \quad & 7x + 6y = -12 \\ & 14x - 10y = 20 \end{aligned}$$

$$\begin{aligned} 22) \quad & -4x + 5y = -27 \\ & -12x - 9y = -9 \end{aligned}$$

$$\begin{aligned} 23) \quad & 9x + 8y = 16 \\ & -3x - 2y = -10 \end{aligned}$$

$$\begin{aligned} 24) \quad & 9x + 16y = 9 \\ & -5x - 8y = -5 \end{aligned}$$



## Answers to Assignment (ID: 6)

1)  $(2, -3)$

2)  $(0, 3)$

3)  $(-1, -1)$

4)  $(-5, -8)$

5)  $(8, -4)$

6)  $(-2, -7)$

7)  $(0, 0)$

8) Infinite number of solutions

9) No solution

10) No solution

11) No solution

12)  $(1, 10)$

13)  $(-1, 9)$

14)  $(-1, -5)$

15)  $(2, 2)$

16)  $(-3, -2)$

17)  $(-2, 6)$

18)  $(-3, -5)$

19)  $(1, 5)$

20)  $(3, -2)$

21)  $(0, -2)$

22)  $(3, -3)$

23)  $(8, -7)$

24)  $(1, 0)$



## Assignment

Solve each system by elimination.

$$\begin{aligned} 1) \quad & 5x - y = 24 \\ & -7x + 7y = 0 \end{aligned}$$

$$\begin{aligned} 2) \quad & 2x - 5y = -24 \\ & -10x - 7y = -8 \end{aligned}$$

$$\begin{aligned} 3) \quad & x + y = 15 \\ & -4x + 2y = 0 \end{aligned}$$

$$\begin{aligned} 4) \quad & 9x + 5y = -24 \\ & 18x + 4y = -30 \end{aligned}$$

$$\begin{aligned} 5) \quad & 3x - 2y = -6 \\ & 4x - 10y = -30 \end{aligned}$$

$$\begin{aligned} 6) \quad & -4x - y = 12 \\ & 8x - 7y = -24 \end{aligned}$$

$$\begin{aligned} 7) \quad & -9x - 6y = -21 \\ & 5x - 2y = 1 \end{aligned}$$

$$\begin{aligned} 8) \quad & x - 10y = 27 \\ & 7x - 2y = -15 \end{aligned}$$

$$\begin{aligned} 9) \quad & 2x + 2y = -28 \\ & -9x + 10y = -7 \end{aligned}$$

$$\begin{aligned} 10) \quad & 8x - 14y = 2 \\ & 2x - 7y = 11 \end{aligned}$$

$$\begin{aligned} 11) \quad & 8x + 3y = -22 \\ & 16x + 4y = -24 \end{aligned}$$

$$\begin{aligned} 12) \quad & -6x - y = -6 \\ & 8x + 2y = 8 \end{aligned}$$

$$\begin{aligned} 13) \quad & 8x - 7y = -22 \\ & 16x - 6y = -28 \end{aligned}$$

$$\begin{aligned} 14) \quad & 12x + 10y = -16 \\ & -6x - 5y = 8 \end{aligned}$$

$$\begin{aligned} 15) \quad & 6x - 20y = -2 \\ & 3x - 10y = 6 \end{aligned}$$

$$\begin{aligned} 16) \quad & 9x + 4y = -5 \\ & 27x + 12y = -15 \end{aligned}$$

$$\begin{aligned} 17) \quad & 2x - y = 11 \\ & 4x - 2y = 22 \end{aligned}$$

$$\begin{aligned} 18) \quad & 2x - 5y = -6 \\ & 6x - 15y = -18 \end{aligned}$$

$$\begin{aligned} 19) \quad & 6x + 2y = -30 \\ & -8x - 6y = 30 \end{aligned}$$

$$\begin{aligned} 20) \quad & -3x + 7y = 15 \\ & 9x + y = 21 \end{aligned}$$

$$\begin{aligned} 21) \quad & -8x + 15y = 8 \\ & -6x + 5y = 6 \end{aligned}$$

$$\begin{aligned} 22) \quad & x + 9y = 27 \\ & -6x - 18y = -18 \end{aligned}$$

$$\begin{aligned} 23) \quad & -18x + 3y = 6 \\ & 9x + 5y = 10 \end{aligned}$$

$$\begin{aligned} 24) \quad & -6x - 10y = -20 \\ & -x + 5y = 10 \end{aligned}$$



## Answers to Assignment (ID: 7)

- |                                  |                                  |                                  |             |
|----------------------------------|----------------------------------|----------------------------------|-------------|
| 1) (6, 6)                        | 2) (-2, 4)                       | 3) (5, 10)                       | 4) (-1, -3) |
| 5) (0, 3)                        | 6) (-3, 0)                       | 7) (1, 2)                        | 8) (-3, -3) |
| 9) (-7, -7)                      | 10) (-5, -3)                     | 11) (1, -10)                     | 12) (1, 0)  |
| 13) (-1, 2)                      | 14) Infinite number of solutions | 15) No solution                  |             |
| 16) Infinite number of solutions | 17) Infinite number of solutions | 18) Infinite number of solutions |             |
| 19) (-6, 3)                      | 20) (2, 3)                       | 21) (-1, 0)                      | 22) (-9, 4) |
| 23) (0, 2)                       | 24) (0, 2)                       |                                  |             |



## Assignment

Solve each system by elimination.

$$\begin{aligned} 1) \quad & -2x + 6y = -4 \\ & 8x - 3y = 16 \end{aligned}$$

$$\begin{aligned} 2) \quad & 6x - 5y = 14 \\ & 3x + 6y = -27 \end{aligned}$$

$$\begin{aligned} 3) \quad & -10x + 9y = -24 \\ & 9x - 3y = -9 \end{aligned}$$

$$\begin{aligned} 4) \quad & -3x - 8y = -8 \\ & -2x + 16y = 16 \end{aligned}$$

$$\begin{aligned} 5) \quad & 14x + 6y = -16 \\ & -7x - 5y = -10 \end{aligned}$$

$$\begin{aligned} 6) \quad & -2x - 8y = 16 \\ & -5x + 4y = -8 \end{aligned}$$

$$\begin{aligned} 7) \quad & -16x - 8y = -16 \\ & -8x + 7y = -8 \end{aligned}$$

$$\begin{aligned} 8) \quad & -16x + 10y = -10 \\ & -8x + 8y = 16 \end{aligned}$$

$$\begin{aligned} 9) \quad & -2x + 2y = -6 \\ & 10x - 5y = -10 \end{aligned}$$

$$\begin{aligned} 10) \quad & -2x + 6y = 6 \\ & -x + y = -5 \end{aligned}$$

$$\begin{aligned} 11) \quad & 3x + 10y = 4 \\ & -x - 20y = -18 \end{aligned}$$

$$\begin{aligned} 12) \quad & 20x - 2y = -20 \\ & 10x - 6y = -10 \end{aligned}$$

$$\begin{aligned} 13) \quad & -18x - y = 20 \\ & -9x + 2y = 5 \end{aligned}$$

$$\begin{aligned} 14) \quad & -10x - 5y = -30 \\ & -5x - y = -24 \end{aligned}$$

$$\begin{aligned} 15) \quad & 8x + 5y = 23 \\ & x + 4y = -14 \end{aligned}$$

$$\begin{aligned} 16) \quad & -14x + 9y = 25 \\ & 7x - 8y = 5 \end{aligned}$$

$$\begin{aligned} 17) \quad & 10x - 4y = 2 \\ & -5x - 8y = -21 \end{aligned}$$

$$\begin{aligned} 18) \quad & -3x - 8y = 5 \\ & -4x - 4y = 20 \end{aligned}$$

$$\begin{aligned} 19) \quad & 14x + 2y = 6 \\ & 7x + 6y = 18 \end{aligned}$$

$$\begin{aligned} 20) \quad & 9x - 5y = 5 \\ & 3x + 8y = -8 \end{aligned}$$

$$\begin{aligned} 21) \quad & -10x - 10y = 10 \\ & -5x - 5y = 5 \end{aligned}$$

$$\begin{aligned} 22) \quad & 3x + 4y = 4 \\ & 9x + 12y = 3 \end{aligned}$$

$$\begin{aligned} 23) \quad & -5x - 9y = -28 \\ & -10x - 18y = -28 \end{aligned}$$

$$\begin{aligned} 24) \quad & -6x - 12y = 6 \\ & 3x + 6y = -3 \end{aligned}$$



## Answers to Assignment (ID: 8)

- |                                  |                 |                 |              |
|----------------------------------|-----------------|-----------------|--------------|
| 1) (2, 0)                        | 2) (-1, -4)     | 3) (-3, -6)     | 4) (0, 1)    |
| 5) (-5, 9)                       | 6) (0, -2)      | 7) (1, 0)       | 8) (5, 7)    |
| 9) (-5, -8)                      | 10) (9, 4)      | 11) (-2, 1)     | 12) (-1, 0)  |
| 13) (-1, -2)                     | 14) (6, -6)     | 15) (6, -5)     | 16) (-5, -5) |
| 17) (1, 2)                       | 18) (-7, 2)     | 19) (0, 3)      | 20) (0, -1)  |
| 21) Infinite number of solutions | 22) No solution | 23) No solution |              |
| 24) Infinite number of solutions |                 |                 |              |





## Assignment

**Solve each system by elimination.**

1)  $-10x - 3y = 13$   
 $20x + y = -21$

2)  $-7x - 2y = 16$   
 $-2x - 6y = 10$

3)  $-6x + 7y = -25$   
 $-3x - 9y = 0$

4)  $-3x - 7y = -9$   
 $6x + 6y = -6$

5)  $-16x + 9y = -16$   
 $8x - 8y = 8$

6)  $-3x - 2y = -3$   
 $8x + 8y = 16$

7)  $8x - 3y = -2$   
 $16x - 7y = 6$

8)  $-x - 8y = -5$   
 $3x + 16y = 7$

9)  $7x - 12y = 13$   
 $-5x + 4y = 9$

10)  $-8x - 6y = -6$   
 $16x + 9y = -15$

11)  $-9x + 3y = -3$   
 $-18x + 5y = -11$

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

13)  $8x + 3y = -26$   
 $16x - 2y = -4$

14)  $5x + 2y = -16$   
 $x - 10y = 28$

15)  $6x - 12y = 0$   
 $-5x + 2y = 24$

16)  $6x - 16y = 26$   
 $x + 8y = -17$

17)  $5x - 4y = 12$   
 $9x - 12y = -12$

18)  $10x + 4y = -16$   
 $-20x - 6y = 14$

19)  $6x + 2y = 16$   
 $12x - 3y = -24$

20)  $-5x + 6y = -2$   
 $3x + 12y = -30$

21)  $-2x + y = -3$   
 $-4x + 6y = -26$

22)  $3x - 9y = -6$   
 $12x + 6y = -24$

23)  $-4x - 4y = 28$   
 $5x + y = -27$

24)  $2x - 3y = 8$   
 $-3x + 6y = -9$



## Answers to Assignment (ID: 9)

1)  $(-1, -1)$

5)  $(1, 0)$

9)  $(-5, -4)$

13)  $(-1, -6)$

17)  $(8, 7)$

21)  $(-1, -5)$

2)  $(-2, -1)$

6)  $(-1, 3)$

10)  $(-6, 9)$

14)  $(-2, -3)$

18)  $(2, -9)$

22)  $(-2, 0)$

3)  $(3, -1)$

7)  $(-4, -10)$

11)  $(2, 5)$

15)  $(-6, -3)$

19)  $(0, 8)$

23)  $(-5, -2)$

4)  $(-4, 3)$

8)  $(-3, 1)$

12)  $(2, -1)$

16)  $(-1, -2)$

20)  $(-2, -2)$

24)  $(7, 2)$



## Assignment

Solve each system by elimination.

$$\begin{aligned} 1) \quad & -7x - y = -8 \\ & -14x - 6y = 8 \end{aligned}$$

$$\begin{aligned} 2) \quad & -3x + 3y = 0 \\ & 2x - 9y = -14 \end{aligned}$$

$$\begin{aligned} 3) \quad & 6x - 18y = 12 \\ & -4x + 9y = 1 \end{aligned}$$

$$\begin{aligned} 4) \quad & -2x - 8y = 0 \\ & -6x - 24y = 0 \end{aligned}$$

$$\begin{aligned} 5) \quad & -3x - y = -5 \\ & -33x - 11y = -11 \end{aligned}$$

$$\begin{aligned} 6) \quad & -4x + 2y = 8 \\ & 8x - 4y = -16 \end{aligned}$$

$$\begin{aligned} 7) \quad & -10x + 20y = -20 \\ & -5x + 10y = -10 \end{aligned}$$

$$\begin{aligned} 8) \quad & 7x + 10y = -21 \\ & 6x + 20y = -18 \end{aligned}$$

$$\begin{aligned} 9) \quad & -x - 10y = 30 \\ & -2x - 5y = 30 \end{aligned}$$

$$\begin{aligned} 10) \quad & -7x - 3y = -28 \\ & -3x + 9y = -12 \end{aligned}$$

$$\begin{aligned} 11) \quad & -7x + 8y = 14 \\ & 4x + 16y = -8 \end{aligned}$$

$$\begin{aligned} 12) \quad & 10x + 12y = -6 \\ & 2x + 4y = 2 \end{aligned}$$

$$\begin{aligned} 13) \quad & -7x + 2y = 11 \\ & -3x + y = 5 \end{aligned}$$

$$\begin{aligned} 14) \quad & 9x + 10y = -24 \\ & 2x + 5y = -22 \end{aligned}$$

$$\begin{aligned} 15) \quad & 2x - 2y = 2 \\ & 12x + 3y = 27 \end{aligned}$$

$$\begin{aligned} 16) \quad & 6x + 5y = 25 \\ & 3x - 7y = 22 \end{aligned}$$

$$\begin{aligned} 17) \quad & -4x - 12y = -16 \\ & -3x + 3y = 12 \end{aligned}$$

$$\begin{aligned} 18) \quad & -9x - 3y = 30 \\ & -7x - 9y = 10 \end{aligned}$$

$$\begin{aligned} 19) \quad & -4x - 6y = -12 \\ & -x - 12y = -3 \end{aligned}$$

$$\begin{aligned} 20) \quad & 7x + 18y = 28 \\ & x + 9y = 4 \end{aligned}$$

$$\begin{aligned} 21) \quad & 6x - 8y = -6 \\ & -3x + 3y = 3 \end{aligned}$$

$$\begin{aligned} 22) \quad & -18x - 8y = -28 \\ & -9x - 2y = -16 \end{aligned}$$

$$\begin{aligned} 23) \quad & 3x + 8y = 5 \\ & 2x + y = 12 \end{aligned}$$

$$\begin{aligned} 24) \quad & 5x - 14y = 23 \\ & 9x - 7y = 5 \end{aligned}$$



## Answers to Assignment (ID: 10)

- |                                 |                |                                 |               |
|---------------------------------|----------------|---------------------------------|---------------|
| 1) $(2, -6)$                    | 2) $(2, 2)$    | 3) $(-7, -3)$                   |               |
| 4) Infinite number of solutions | 5) No solution | 6) Infinite number of solutions |               |
| 7) Infinite number of solutions | 8) $(-3, 0)$   | 9) $(-10, -2)$                  |               |
| 10) $(4, 0)$                    | 11) $(-2, 0)$  | 12) $(-3, 2)$                   | 13) $(-1, 2)$ |
| 14) $(4, -6)$                   | 15) $(2, 1)$   | 16) $(5, -1)$                   | 17) $(-2, 2)$ |
| 18) $(-4, 2)$                   | 19) $(3, 0)$   | 20) $(4, 0)$                    | 21) $(-1, 0)$ |
| 22) $(2, -1)$                   | 23) $(7, -2)$  | 24) $(-1, -2)$                  |               |

