

Assignment

Solve each system by substitution.

1) $y = -2$
 $4x - 7y = 22$

2) $4x + 5y = -13$
 $x + y = -2$

3) $-8x + 5y = -6$
 $-3x + y = -4$

4) $7x + y = -15$
 $-6x - 7y = -24$

5) $-3x - 5y = 12$
 $-6x + y = 24$

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

7) $x - 3y = -5$
 $-x + 3y = 0$

8) $4x + y = -20$
 $8x + 5y = -16$

9) $x - 4y = 14$
 $-x + 2y = -10$

10) $x - 4y = 1$
 $-x - 7y = 21$

11) $-x + 2y = 8$
 $2x + y = 9$

12) $-3x - 5y = 12$
 $x + 5y = -4$

13) $-3x + 9y = 57$
 $x - 3y = -19$

14) $x - 4y = -8$
 $4x - 3y = 7$

15) $-2x + y = -4$
 $-2x - 7y = -20$

16) $7x + 4y = -13$
 $x + 4y = 5$

17) $-7x + 7y = 0$
 $-4x + y = 9$

18) $x + 4y = 10$
 $-7x + 3y = -8$

19) $-6x + y = -11$
 $3x + 2y = -7$

20) $-8x - 6y = -16$
 $8x + y = -24$

21) $-3x + 7y = -14$
 $-3x + y = -20$

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

23) $4x + y = -9$
 $-12x - 3y = 27$

24) $-8x - 2y = 16$
 $8x + y = -8$



Answers to Assignment (ID: 1)

1) $(2, -2)$

2) $(3, -5)$

3) $(2, 2)$

4) $(-3, 6)$

5) $(-4, 0)$

6) $(-2, 8)$

7) No solution

8) $(-7, 8)$

9) $(6, -2)$

10) $(-7, -2)$

11) $(2, 5)$

12) $(-4, 0)$

13) Infinite number of solutions

14) $(4, 3)$

15) $(3, 2)$

16) $(-3, 2)$

17) $(-3, -3)$

18) $(2, 2)$

19) $(1, -5)$

20) $(-4, 8)$

21) $(7, 1)$

22) $(-3, -2)$

23) Infinite number of solutions

24) $(0, -8)$



Assignment

Solve each system by substitution.

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

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

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

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

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

$$\begin{aligned} 6) \quad -x - 2y &= 9 \\ -4x + y &= -18 \end{aligned}$$

$$\begin{aligned} 7) \quad -4x - 5y &= -3 \\ 4x + y &= 23 \end{aligned}$$

$$\begin{aligned} 8) \quad 8x - 7y &= 22 \\ x + 3y &= -5 \end{aligned}$$

$$\begin{aligned} 9) \quad 4x + 6y &= -6 \\ x - 7y &= 24 \end{aligned}$$

$$\begin{aligned} 10) \quad x - 2y &= -8 \\ -3x + 3y &= 0 \end{aligned}$$

$$\begin{aligned} 11) \quad 2x + 3y &= -22 \\ 6x + y &= -2 \end{aligned}$$

$$\begin{aligned} 12) \quad x - 7y &= -4 \\ -x + 7y &= -5 \end{aligned}$$

$$\begin{aligned} 13) \quad 3x - 2y &= 7 \\ x + 3y &= -16 \end{aligned}$$

$$\begin{aligned} 14) \quad x - 4y &= -18 \\ -7x + 7y &= 0 \end{aligned}$$

$$\begin{aligned} 15) \quad 10x - 2y &= -7 \\ -5x + y &= 8 \end{aligned}$$

$$\begin{aligned} 16) \quad -6x - 4y &= 0 \\ 7x + y &= -11 \end{aligned}$$

$$\begin{aligned} 17) \quad -10x + 2y &= 8 \\ -5x + y &= 0 \end{aligned}$$

$$\begin{aligned} 18) \quad 6x - 2y &= 12 \\ -4x + y &= -7 \end{aligned}$$

$$\begin{aligned} 19) \quad x - 6y &= 24 \\ 3x - 18y &= 72 \end{aligned}$$

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

$$\begin{aligned} 21) \quad 4x + y &= 12 \\ -12x - 3y &= -36 \end{aligned}$$

$$\begin{aligned} 22) \quad 4x + y &= 5 \\ 12x + 3y &= 3 \end{aligned}$$

$$\begin{aligned} 23) \quad 3x + y &= -1 \\ -4x + 3y &= 10 \end{aligned}$$

$$\begin{aligned} 24) \quad x - y &= 1 \\ 3x - 3y &= 3 \end{aligned}$$



Answers to Assignment (ID: 2)

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



Assignment

Solve each system by substitution.

$$\begin{aligned} 1) \quad x - 4y &= 18 \\ 3x + 2y &= -2 \end{aligned}$$

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

$$\begin{aligned} 3) \quad -x + y &= 7 \\ 2x + 7y &= -23 \end{aligned}$$

$$\begin{aligned} 4) \quad -2x - 6y &= -10 \\ x - 2y &= 0 \end{aligned}$$

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

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

$$\begin{aligned} 7) \quad x + 4y &= -22 \\ -5x + 8y &= -2 \end{aligned}$$

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

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

$$\begin{aligned} 10) \quad -5x + 7y &= -14 \\ x + 8y &= -16 \end{aligned}$$

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

$$\begin{aligned} 12) \quad -2x - 2y &= 4 \\ -3x + y &= 18 \end{aligned}$$

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

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

$$\begin{aligned} 15) \quad x - 2y &= 1 \\ -3x + 8y &= -5 \end{aligned}$$

$$\begin{aligned} 16) \quad -5x - 7y &= -18 \\ x + y &= 4 \end{aligned}$$

$$\begin{aligned} 17) \quad 3x - 2y &= -8 \\ x + 3y &= 12 \end{aligned}$$

$$\begin{aligned} 18) \quad 3x + y &= -12 \\ -x - 3y &= 20 \end{aligned}$$

$$\begin{aligned} 19) \quad 4x + y &= -22 \\ 2x + 5y &= 16 \end{aligned}$$

$$\begin{aligned} 20) \quad x - 2y &= 10 \\ 3x - 6y &= 30 \end{aligned}$$

$$\begin{aligned} 21) \quad x - 7y &= 20 \\ -4x - 3y &= 13 \end{aligned}$$

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

$$\begin{aligned} 23) \quad x - y &= 0 \\ -5x + 8y &= 21 \end{aligned}$$

$$\begin{aligned} 24) \quad 4x - 3y &= 14 \\ x + 5y &= 15 \end{aligned}$$



Answers to Assignment (ID: 3)

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



Assignment

Solve each system by substitution.

$$\begin{aligned} 1) \quad & 7x - 6y = -11 \\ & -5x + y = -2 \end{aligned}$$

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

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

$$\begin{aligned} 4) \quad & x + 3y = 3 \\ & -2x + 7y = -6 \end{aligned}$$

$$\begin{aligned} 5) \quad & x - 6y = 17 \\ & -4x + 2y = -2 \end{aligned}$$

$$\begin{aligned} 6) \quad & x - 3y = 19 \\ & -3x + 2y = -15 \end{aligned}$$

$$\begin{aligned} 7) \quad & 3x - y = 2 \\ & -6x + y = -8 \end{aligned}$$

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

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

$$\begin{aligned} 10) \quad & 3x - 7y = 18 \\ & x + y = -14 \end{aligned}$$

$$\begin{aligned} 11) \quad & x + y = 5 \\ & -6x + 4y = 0 \end{aligned}$$

$$\begin{aligned} 12) \quad & x - 4y = 18 \\ & 8x + 5y = -4 \end{aligned}$$

$$\begin{aligned} 13) \quad & x + 3y = 2 \\ & 3x + 9y = -6 \end{aligned}$$

$$\begin{aligned} 14) \quad & -2x - 3y = -10 \\ & x - 3y = -13 \end{aligned}$$

$$\begin{aligned} 15) \quad & x + 6y = 8 \\ & -5x - y = -11 \end{aligned}$$

$$\begin{aligned} 16) \quad & x - 6y = -10 \\ & -6x - 7y = 17 \end{aligned}$$

$$\begin{aligned} 17) \quad & -6x + y = 3 \\ & -2x + 3y = -7 \end{aligned}$$

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

$$\begin{aligned} 19) \quad & -x + y = 1 \\ & 5x - y = 11 \end{aligned}$$

$$\begin{aligned} 20) \quad & x + 4y = 16 \\ & 2x - 3y = -1 \end{aligned}$$

$$\begin{aligned} 21) \quad & -5x - 3y = 14 \\ & -5x + y = 22 \end{aligned}$$

$$\begin{aligned} 22) \quad & -2x + 3y = 6 \\ & x + 2y = 11 \end{aligned}$$

$$\begin{aligned} 23) \quad & 3x + y = -6 \\ & -5x + 4y = 10 \end{aligned}$$

$$\begin{aligned} 24) \quad & 8x - 6y = 22 \\ & 5x + y = -10 \end{aligned}$$



Answers to Assignment (ID: 4)

1) (1, 3)

4) (3, 0)

8) (3, 6)

11) (2, 3)

15) (2, 1)

19) (3, 4)

23) (-2, 0)

2) Infinite number of solutions

5) (-1, -3)

9) Infinite number of solutions

12) (2, -4)

16) (-4, 1)

20) (4, 3)

24) (-1, -5)

3) (-3, 2)

6) (1, -6)

10) (-8, -6)

13) No solution

17) (-1, -3)

21) (-4, 2)

7) (2, 4)

14) (-1, 4)

18) (0, 3)

22) (3, 4)



Assignment

Solve each system by substitution.

$$\begin{aligned} 1) \quad & 4x + y = -24 \\ & -12x - 3y = 72 \end{aligned}$$

$$\begin{aligned} 2) \quad & 2x - 2y = -10 \\ & x + 5y = -11 \end{aligned}$$

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

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

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

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

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

$$\begin{aligned} 8) \quad & x - 5y = 17 \\ & -x - 3y = 7 \end{aligned}$$

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

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

$$\begin{aligned} 11) \quad & 3x + y = -14 \\ & -3x - 2y = 16 \end{aligned}$$

$$\begin{aligned} 12) \quad & x + 8y = 7 \\ & 5x - 5y = -10 \end{aligned}$$

$$\begin{aligned} 13) \quad & -x - 5y = -1 \\ & x - 8y = -12 \end{aligned}$$

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

$$\begin{aligned} 15) \quad & -6x + y = -24 \\ & 3x + 7y = 12 \end{aligned}$$

$$\begin{aligned} 16) \quad & 5x + 2y = -20 \\ & x - 2y = -16 \end{aligned}$$

$$\begin{aligned} 17) \quad & -3x + y = -6 \\ & -x + 5y = 12 \end{aligned}$$

$$\begin{aligned} 18) \quad & 2x + 8y = -2 \\ & x + 6y = -3 \end{aligned}$$

$$\begin{aligned} 19) \quad & x - 5y = -20 \\ & 3x - 6y = -15 \end{aligned}$$

$$\begin{aligned} 20) \quad & 7x - 4y = 20 \\ & 8x + y = -5 \end{aligned}$$

$$\begin{aligned} 21) \quad & 5x + 7y = -8 \\ & 3x + y = -8 \end{aligned}$$

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

$$\begin{aligned} 23) \quad & 7x + y = -24 \\ & 5x - 2y = -9 \end{aligned}$$

$$\begin{aligned} 24) \quad & x + 5y = -19 \\ & 7x - 3y = -19 \end{aligned}$$



Answers to Assignment (ID: 5)

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



Assignment

Solve each system by substitution.

1) $x - y = 5$
 $-2x - 4y = 20$

2) $x + y = -2$
 $-3x - 5y = 0$

3) $2x + 5y = -1$
 $x - 3y = 16$

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

5) $x - 3y = 9$
 $-3x - 7y = 21$

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

7) $3x - 9y = 5$
 $x - 3y = -8$

8) $x - 6y = 10$
 $7x + 4y = 24$

9) $5x + 2y = -19$
 $7x + y = -23$

10) $2x - 5y = -9$
 $x + 2y = -9$

11) $x - 4y = 8$
 $4x - 6y = 22$

12) $7x + y = -7$
 $8x - 4y = -8$

13) $8x - 3y = -19$
 $-6x + y = 13$

14) $-x + 5y = -5$
 $4x + y = -22$

15) $x - 4y = 8$
 $3x - 12y = 24$

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

17) $x - 5y = 1$
 $-3x + 7y = -11$

18) $2x + 8y = -22$
 $-2x + y = 4$

19) $3x - 5y = 0$
 $2x + y = -13$

20) $4x + 2y = 24$
 $x + 2y = 18$

21) $3x + y = 13$
 $3x - 3y = -3$

22) $-6x + 7y = -8$
 $x + y = -3$

23) $3x - 2y = -13$
 $x + 2y = -7$

24) $-3x + 8y = 4$
 $-4x + y = -14$



Answers to Assignment (ID: 6)

- 1) $(0, -5)$
- 5) $(0, -3)$
- 9) $(-3, -2)$
- 13) $(-2, 1)$
- 16) $(5, 4)$
- 20) $(2, 8)$
- 24) $(4, 2)$

- 2) $(-5, 3)$
- 6) $(0, -2)$
- 10) $(-7, -1)$
- 14) $(-5, -2)$
- 17) $(6, 1)$
- 21) $(3, 4)$

- 3) $(7, -3)$
- 7) No solution
- 11) $(4, -1)$
- 15) Infinite number of solutions
- 18) $(-3, -2)$
- 22) $(-1, -2)$

- 4) No solution
- 8) $(4, -1)$
- 12) $(-1, 0)$
- 19) $(-5, -3)$
- 23) $(-5, -1)$



Assignment

Solve each system by substitution.

$$\begin{aligned} 1) \quad & -x + y = 2 \\ & 8x - 3y = -21 \end{aligned}$$

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

$$\begin{aligned} 3) \quad & 4x - 3y = -9 \\ & x - 2y = 4 \end{aligned}$$

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

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

$$\begin{aligned} 6) \quad & 7x - 6y = -21 \\ & x + 3y = -3 \end{aligned}$$

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

$$\begin{aligned} 8) \quad & x + 2y = -10 \\ & -5x - 2y = -6 \end{aligned}$$

$$\begin{aligned} 9) \quad & -4x + 6y = -2 \\ & y = -3 \end{aligned}$$

$$\begin{aligned} 10) \quad & -3x - 7y = 18 \\ & x + 5y = -6 \end{aligned}$$

$$\begin{aligned} 11) \quad & -4x + 2y = 14 \\ & x + y = -11 \end{aligned}$$

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

$$\begin{aligned} 13) \quad & x + 6y = 8 \\ & 3x - 3y = -18 \end{aligned}$$

$$\begin{aligned} 14) \quad & 3x - 4y = 2 \\ & -x + y = -1 \end{aligned}$$

$$\begin{aligned} 15) \quad & x - 3y = -5 \\ & -5x + 8y = 4 \end{aligned}$$

$$\begin{aligned} 16) \quad & x - 5y = -11 \\ & 3x - 15y = -33 \end{aligned}$$

$$\begin{aligned} 17) \quad & x - 3y = 5 \\ & -x - 5y = -13 \end{aligned}$$

$$\begin{aligned} 18) \quad & x + 2y = 9 \\ & -8x - 6y = -22 \end{aligned}$$

$$\begin{aligned} 19) \quad & x + 7y = 1 \\ & -3x - 21y = 0 \end{aligned}$$

$$\begin{aligned} 20) \quad & 7x + y = 5 \\ & 14x + 2y = 10 \end{aligned}$$

$$\begin{aligned} 21) \quad & 2x + y = 10 \\ & -x + 6y = 21 \end{aligned}$$

$$\begin{aligned} 22) \quad & x + 7y = 8 \\ & -2x + 7y = 5 \end{aligned}$$

$$\begin{aligned} 23) \quad & 3x - 15y = -7 \\ & x - 5y = 7 \end{aligned}$$

$$\begin{aligned} 24) \quad & -x - 5y = -8 \\ & -4x + y = 10 \end{aligned}$$



Answers to Assignment (ID: 7)

1) $(-3, -1)$

2) $(1, 1)$

3) $(-6, -5)$

4) $(4, 8)$

5) $(-8, -6)$

6) $(-3, 0)$

7) $(3, 0)$

8) $(4, -7)$

9) $(-4, -3)$

10) $(-6, 0)$

11) $(-6, -5)$

12) $(1, -8)$

13) $(-4, 2)$

14) $(2, 1)$

15) $(4, 3)$

16) Infinite number of solutions

17) $(8, 1)$

18) $(-1, 5)$

19) No solution

20) Infinite number of solutions

21) $(3, 4)$

22) $(1, 1)$

23) No solution

24) $(-2, 2)$



Assignment

Solve each system by substitution.

$$\begin{aligned} 1) \quad & x - 3y = 1 \\ & 6x - 7y = -16 \end{aligned}$$

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

$$\begin{aligned} 3) \quad & -6x + y = -9 \\ & 4x - 3y = 13 \end{aligned}$$

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

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

$$\begin{aligned} 6) \quad & -24x - 3y = 5 \\ & 8x + y = -5 \end{aligned}$$

$$\begin{aligned} 7) \quad & x + 7y = -12 \\ & -4x + 5y = 15 \end{aligned}$$

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

$$\begin{aligned} 9) \quad & 5x - 6y = -22 \\ & 4x + y = -6 \end{aligned}$$

$$\begin{aligned} 10) \quad & 4x + y = -19 \\ & 5x + 5y = -20 \end{aligned}$$

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

$$\begin{aligned} 12) \quad & x - 5y = -7 \\ & 3x - 4y = -10 \end{aligned}$$

$$\begin{aligned} 13) \quad & 4x + 2y = -4 \\ & -7x + y = -20 \end{aligned}$$

$$\begin{aligned} 14) \quad & -6x - 3y = -18 \\ & 4x + y = 4 \end{aligned}$$

$$\begin{aligned} 15) \quad & 3x + y = 13 \\ & -3x + 2y = -19 \end{aligned}$$

$$\begin{aligned} 16) \quad & y = 2 \\ & -3x + 4y = 23 \end{aligned}$$

$$\begin{aligned} 17) \quad & -4x - y = 14 \\ & y = -2 \end{aligned}$$

$$\begin{aligned} 18) \quad & -7x + 4y = -8 \\ & -8x + y = -2 \end{aligned}$$

$$\begin{aligned} 19) \quad & 2x + y = 1 \\ & 4x - y = -1 \end{aligned}$$

$$\begin{aligned} 20) \quad & 3x - 6y = 15 \\ & x + 7y = -13 \end{aligned}$$

$$\begin{aligned} 21) \quad & 3x - 6y = 0 \\ & 2x + y = 5 \end{aligned}$$

$$\begin{aligned} 22) \quad & 3x + 9y = 1 \\ & x + 3y = 3 \end{aligned}$$

$$\begin{aligned} 23) \quad & x - 5y = 4 \\ & 4x - y = -22 \end{aligned}$$

$$\begin{aligned} 24) \quad & -8x + 7y = 13 \\ & x - 6y = -17 \end{aligned}$$



Answers to Assignment (ID: 8)

1) $(-5, -2)$

5) No solution

9) $(-2, 2)$

13) $(2, -6)$

17) $(-3, -2)$

21) $(2, 1)$

2) $(0, 3)$

6) No solution

10) $(-5, 1)$

14) $(-1, 8)$

18) $(0, -2)$

22) No solution

3) $(1, -3)$

7) $(-5, -1)$

11) $(-3, 1)$

15) $(5, -2)$

19) $(0, 1)$

23) $(-6, -2)$

4) $(0, 0)$

8) $(-4, 2)$

12) $(-2, 1)$

16) $(-5, 2)$

20) $(1, -2)$

24) $(1, 3)$



Assignment

Solve each system by substitution.

$$\begin{aligned} 1) \quad & -x + y = 6 \\ & 4x - 2y = -22 \end{aligned}$$

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

$$\begin{aligned} 3) \quad & x - 2y = -11 \\ & -7x + 7y = 21 \end{aligned}$$

$$\begin{aligned} 4) \quad & x - y = -13 \\ & -7x - 3y = 21 \end{aligned}$$

$$\begin{aligned} 5) \quad & -2x - 5y = -20 \\ & 2x + y = 12 \end{aligned}$$

$$\begin{aligned} 6) \quad & 6x + y = 13 \\ & 8x - 7y = 9 \end{aligned}$$

$$\begin{aligned} 7) \quad & x - 3y = 18 \\ & 6x - 6y = 24 \end{aligned}$$

$$\begin{aligned} 8) \quad & -x + 7y = -2 \\ & y = -1 \end{aligned}$$

$$\begin{aligned} 9) \quad & 4x + 3y = 2 \\ & -6x + y = -14 \end{aligned}$$

$$\begin{aligned} 10) \quad & x - 3y = 19 \\ & -5x - 2y = -10 \end{aligned}$$

$$\begin{aligned} 11) \quad & -6x + y = -5 \\ & 12x - 2y = 3 \end{aligned}$$

$$\begin{aligned} 12) \quad & 8x + 5y = 22 \\ & x + 2y = 11 \end{aligned}$$

$$\begin{aligned} 13) \quad & -2x + y = -3 \\ & -2x + 4y = 12 \end{aligned}$$

$$\begin{aligned} 14) \quad & x + 2y = -10 \\ & 2x - 4y = -12 \end{aligned}$$

$$\begin{aligned} 15) \quad & -7x - y = -17 \\ & -4x + y = -5 \end{aligned}$$

$$\begin{aligned} 16) \quad & -6x - 5y = -10 \\ & 3x + y = 2 \end{aligned}$$

$$\begin{aligned} 17) \quad & x - 8y = 24 \\ & 2x - 3y = 9 \end{aligned}$$

$$\begin{aligned} 18) \quad & x - 7y = -22 \\ & -x + 7y = 22 \end{aligned}$$

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

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

$$\begin{aligned} 21) \quad & -3x - 8y = -23 \\ & x - 3y = -15 \end{aligned}$$

$$\begin{aligned} 22) \quad & 18x - 3y = -18 \\ & -6x + y = 6 \end{aligned}$$

$$\begin{aligned} 23) \quad & x + y = -9 \\ & -4x + 7y = -19 \end{aligned}$$

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



Answers to Assignment (ID: 9)

1) $(-5, 1)$

5) $(5, 2)$

9) $(2, -2)$

13) $(4, 5)$

17) $(0, -3)$

20) $(-4, 4)$

23) $(-4, -5)$

2) $(0, -2)$

6) $(2, 1)$

10) $(4, -5)$

14) $(-8, -1)$

18) Infinite number of solutions

21) $(-3, 4)$

24) $(8, 0)$

3) $(5, 8)$

7) $(-3, -7)$

11) No solution

15) $(2, 3)$

19) Infinite number of solutions

22) Infinite number of solutions

4) $(-6, 7)$

8) $(-5, -1)$

12) $(-1, 6)$

16) $(0, 2)$



Assignment

Solve each system by substitution.

$$1) \begin{cases} x + 7y = 9 \\ -7x + 7y = -7 \end{cases}$$

$$2) \begin{cases} x - 2y = 5 \\ -x - 4y = 1 \end{cases}$$

$$3) \begin{cases} 2x + y = 3 \\ 3x + 5y = 1 \end{cases}$$

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

$$5) \begin{cases} x + y = 12 \\ -3x + 3y = 0 \end{cases}$$

$$6) \begin{cases} -7x - 3y = -4 \\ 7x + y = -8 \end{cases}$$

$$7) \begin{cases} -8x - 2y = 4 \\ x - 8y = 16 \end{cases}$$

$$8) \begin{cases} x - 7y = 18 \\ -x + 5y = -12 \end{cases}$$

$$9) \begin{cases} x - 6y = -7 \\ 3x - 4y = 7 \end{cases}$$

$$10) \begin{cases} x - y = 1 \\ -x + 7y = 11 \end{cases}$$

$$11) \begin{cases} -x + 5y = -4 \\ x - y = 0 \end{cases}$$

$$12) \begin{cases} x + 8y = 10 \\ -x - 8y = -10 \end{cases}$$

$$13) \begin{cases} 2x + 3y = 8 \\ x - 3y = -23 \end{cases}$$

$$14) \begin{cases} x - 4y = 13 \\ -x + 4y = -13 \end{cases}$$

$$15) \begin{cases} x + 7y = -6 \\ 4x + 3y = -24 \end{cases}$$

$$16) \begin{cases} -2x - y = 10 \\ -x + y = 14 \end{cases}$$

$$17) \begin{cases} 4x + 7y = 2 \\ -3x + y = -14 \end{cases}$$

$$18) \begin{cases} -8x + 7y = -18 \\ x + 4y = 12 \end{cases}$$

$$19) \begin{cases} 3x + y = 12 \\ -3x - 5y = 12 \end{cases}$$

$$20) \begin{cases} -2x + y = 4 \\ 4x - 2y = -8 \end{cases}$$

$$21) \begin{cases} x - y = -7 \\ -3x + 3y = 1 \end{cases}$$

$$22) \begin{cases} x + 7y = -13 \\ -8x + 6y = -20 \end{cases}$$

$$23) \begin{cases} 6x - y = 13 \\ -3x + y = -7 \end{cases}$$

$$24) \begin{cases} 2x - y = -3 \\ -2x + y = 3 \end{cases}$$



Answers to Assignment (ID: 10)

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

