

**SYSTEMS OF LINEAR EQUATIONS****Solve each system by elimination.**

1)  $-10x - 10y = -10$   
 $x + y = -1$

2)  $-2x - 10y = -6$   
 $6x + 2y = -10$

3)  $-12x - 2y = 16$   
 $4x - 7y = 10$

4)  $-10x + 2y = 20$   
 $2x - y = -10$

5)  $-10x + 8y = 16$   
 $6x - 4y = -16$

6)  $-7x - 3y = 28$   
 $-5x + 9y = 20$

7)  $-2x + 3y = -9$   
 $8x - 10y = 18$

8)  $-x + 3y = -6$   
 $-4x - 9y = -24$

9)  $-10x + 9y = -29$   
 $-9x + 3y = -21$

10)  $-3x - 18y = 18$   
 $6x + 9y = -9$

**Solve each system by substitution.**

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

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

13)  $y = 3x - 16$   
 $y = -6x + 11$

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

15)  $y = 3x + 17$   
 $y = -8x - 16$

16)  $y = 4x - 5$   
 $y = 7x - 8$

17)  $y = -6x - 10$   
 $y = -5x - 8$

18)  $y = -5x + 23$   
 $y = 5x - 7$

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

20)  $y = 2x + 6$   
 $y = -2x - 2$

21)  $4x + 2y = 16$   
 $y = 2$

22)  $y = x + 1$   
 $2x - 2y = -2$

23)  $y = -3$   
 $-7x - 4y = -23$

24)  $-6x - 7y = -15$   
 $y = -2x + 1$

25)  $8x + 4y = 16$   
 $y = -4x + 2$

26)  $y = 1$   
 $3x - 5y = -20$

27)  $y = 7x - 7$   
 $-6x + 6y = -6$

28)  $2x + 8y = 22$   
 $y = 4$

29)  $-4x - 2y = -16$   
 $y = 2$

30)  $y = 8x - 4$   
 $-7x + 7y = 21$

## Answers to SYSTEMS OF LINEAR EQUATIONS

- |                |                                  |                |               |
|----------------|----------------------------------|----------------|---------------|
| 1) No solution | 2) $(-2, 1)$                     | 3) $(-1, -2)$  | 4) $(0, 10)$  |
| 5) $(-8, -8)$  | 6) $(-4, 0)$                     | 7) $(-9, -9)$  | 8) $(6, 0)$   |
| 9) $(2, -1)$   | 10) $(0, -1)$                    | 11) $(8, -8)$  | 12) $(-3, 5)$ |
| 13) $(3, -7)$  | 14) $(-3, 0)$                    | 15) $(-3, 8)$  | 16) $(1, -1)$ |
| 17) $(-2, 2)$  | 18) $(3, 8)$                     | 19) $(-1, -3)$ | 20) $(-2, 2)$ |
| 21) $(3, 2)$   | 22) Infinite number of solutions | 23) $(5, -3)$  |               |
| 24) $(-1, 3)$  | 25) $(-1, 6)$                    | 26) $(-5, 1)$  | 27) $(1, 0)$  |
| 28) $(-5, 4)$  | 29) $(3, 2)$                     | 30) $(1, 4)$   |               |