



Systems of linear equations

Using substitution, find both x- and y- coordinates of the solution to each system.

1) $-3x + 4y = -17$
 $y = 1$

2) $y = -2$
 $-8x - 3y = 14$

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

4) $y = -6x$
 $-3x - 3y = 15$

5) $y = 2x$
 $-4x + 5y = 6$

6) $y = 0$
 $6x + 6y = 12$

$$\begin{aligned} 7) \quad y &= 1 \\ 3x - 2y &= 19 \end{aligned}$$

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

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

$$\begin{aligned} 10) \quad y &= 0 \\ 4x - 5y &= -12 \end{aligned}$$

$$\begin{aligned} 11) \quad -x - 5y &= 17 \\ y &= -2 \end{aligned}$$

$$\begin{aligned} 12) \quad 7x - 3y &= -18 \\ y &= -1 \end{aligned}$$

$$13) \begin{aligned} -x - 5y &= 20 \\ y &= -4 \end{aligned}$$

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

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

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

$$17) \begin{aligned} -3x - 3y &= 6 \\ y &= -4 \end{aligned}$$

$$18) \begin{aligned} 8x - 7y &= -19 \\ y &= -3 \end{aligned}$$

$$19) \begin{aligned} y &= -1 \\ 5x - 4y &= -16 \end{aligned}$$

$$20) \begin{aligned} y &= -2 \\ 4x - 4y &= -8 \end{aligned}$$

$$21) \begin{aligned} 4x - 8y &= -8 \\ y &= -1 \end{aligned}$$

$$22) \begin{aligned} y &= -2 \\ -3x + 6y &= -18 \end{aligned}$$

$$23) \begin{aligned} 5x + 4y &= 7 \\ y &= -2 \end{aligned}$$

$$24) \begin{aligned} 3x - 5y &= 14 \\ y &= -1 \end{aligned}$$

$$25) \begin{aligned} 2x - y &= -1 \\ y &= 5 \end{aligned}$$

$$26) \begin{aligned} y &= 2 \\ -5x + 5y &= 10 \end{aligned}$$

$$27) \begin{aligned} -6x + 2y &= 0 \\ y &= 7x \end{aligned}$$

$$28) \begin{aligned} -5x - 2y &= 7 \\ y &= -6 \end{aligned}$$

$$29) \begin{aligned} -3x + 2y &= 0 \\ y &= 3x \end{aligned}$$

$$30) \begin{aligned} -7x + 5y &= 18 \\ y &= 5 \end{aligned}$$

Answers to Systems of linear equations

1) $(7, 1)$

5) $(1, 2)$

9) $(-5, 6)$

13) $(0, -4)$

17) $(2, -4)$

21) $(-4, -1)$

25) $(2, 5)$

29) $(0, 0)$

2) $(-1, -2)$

6) $(2, 0)$

10) $(-3, 0)$

14) $(6, -2)$

18) $(-5, -3)$

22) $(2, -2)$

26) $(0, 2)$

30) $(1, 5)$

3) $(-6, -6)$

7) $(7, 1)$

11) $(-7, -2)$

15) $(6, -1)$

19) $(-4, -1)$

23) $(3, -2)$

27) $(0, 0)$

4) $(1, -6)$

8) $(4, 5)$

12) $(-3, -1)$

16) $(6, 1)$

20) $(-4, -2)$

24) $(3, -1)$

28) $(1, -6)$