

## 4.2 Practice - Substitution

Solve each system by substitution.

$$1) \begin{aligned} y &= -3x \\ y &= 6x - 9 \end{aligned}$$

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

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

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

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

$$6) \begin{aligned} y &= 3x + 13 \\ y &= -2x - 22 \end{aligned}$$

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

$$8) \begin{aligned} y &= -2x - 9 \\ y &= -5x - 21 \end{aligned}$$

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

$$10) \begin{aligned} y &= 7x - 24 \\ y &= -3x + 16 \end{aligned}$$

$$11) \begin{aligned} y &= 6x - 6 \\ -3x - 3y &= -24 \end{aligned}$$

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

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

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

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

$$16) \begin{aligned} 7x + 2y &= -7 \\ y &= 5x + 5 \end{aligned}$$

$$17) \begin{aligned} -2x + 2y &= 18 \\ y &= 7x + 15 \end{aligned}$$

$$18) \begin{aligned} y &= x + 4 \\ 3x - 4y &= -19 \end{aligned}$$

$$19) \begin{aligned} y &= -8x + 19 \\ -x + 6y &= 16 \end{aligned}$$

$$20) \begin{aligned} y &= -2x + 8 \\ -7x - 6y &= -8 \end{aligned}$$

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

$$22) \begin{aligned} x - 2y &= -13 \\ 4x + 2y &= 18 \end{aligned}$$

$$23) \begin{aligned} x - 5y &= 7 \\ 2x + 7y &= -20 \end{aligned}$$

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

$$25) \begin{aligned} -2x - y &= -5 \\ x - 8y &= -23 \end{aligned}$$

$$26) \begin{aligned} 6x + 4y &= 16 \\ -2x + y &= -3 \end{aligned}$$

$$27) \begin{aligned} -6x + y &= 20 \\ -3x - 3y &= -18 \end{aligned}$$

$$28) \begin{aligned} 7x + 5y &= -13 \\ x - 4y &= -16 \end{aligned}$$

$$29) \begin{aligned} 3x + y &= 9 \\ 2x + 8y &= -16 \end{aligned}$$

$$30) \begin{aligned} -5x - 5y &= -20 \\ -2x + y &= 7 \end{aligned}$$

$$31) \begin{aligned} 2x + y &= 2 \\ 3x + 7y &= 14 \end{aligned}$$

$$32) \begin{aligned} 2x + y &= -7 \\ 5x + 3y &= -21 \end{aligned}$$

$$33) \begin{aligned} x + 5y &= 15 \\ -3x + 2y &= 6 \end{aligned}$$

$$34) \begin{aligned} 2x + 3y &= -10 \\ 7x + y &= 3 \end{aligned}$$

$$35) \begin{aligned} -2x + 4y &= -16 \\ y &= -2 \end{aligned}$$

$$36) \begin{aligned} -2x + 2y &= -22 \\ -5x - 7y &= -19 \end{aligned}$$

$$37) \begin{aligned} -6x + 6y &= -12 \\ 8x - 3y &= 16 \end{aligned}$$

$$38) \begin{aligned} -8x + 2y &= -6 \\ -2x + 3y &= 11 \end{aligned}$$

$$39) \begin{aligned} 2x + 3y &= 16 \\ -7x - y &= 20 \end{aligned}$$

$$40) \begin{aligned} -x - 4y &= -14 \\ -6x + 8y &= 12 \end{aligned}$$



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## Answers - Substitution

- |                |                |               |
|----------------|----------------|---------------|
| 1) $(1, -3)$   | 15) $(1, -5)$  | 29) $(4, -3)$ |
| 2) $(-3, 2)$   | 16) $(-1, 0)$  | 30) $(-1, 5)$ |
| 3) $(-2, -5)$  | 17) $(-1, 8)$  | 31) $(0, 2)$  |
| 4) $(0, 3)$    | 18) $(3, 7)$   | 32) $(0, -7)$ |
| 5) $(-1, -2)$  | 19) $(2, 3)$   | 33) $(0, 3)$  |
| 6) $(-7, -8)$  | 20) $(8, -8)$  | 34) $(1, -4)$ |
| 7) $(1, 5)$    | 21) $(1, 7)$   | 35) $(4, -2)$ |
| 8) $(-4, -1)$  | 22) $(1, 7)$   | 36) $(8, -3)$ |
| 9) $(3, 3)$    | 23) $(-3, -2)$ | 37) $(2, 0)$  |
| 10) $(4, 4)$   | 24) $(1, -3)$  | 38) $(2, 5)$  |
| 11) $(2, 6)$   | 25) $(1, 3)$   | 39) $(-4, 8)$ |
| 12) $(-3, 3)$  | 26) $(2, 1)$   | 40) $(2, 3)$  |
| 13) $(-2, -6)$ | 27) $(-2, 8)$  |               |
| 14) $(0, 2)$   | 28) $(-4, 3)$  |               |



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