Handout 1-Solving Linear Systems Algebraically: Substitution Method

Solve the following linear systems algebraically using the substitution method.

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

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

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

4. $\begin{aligned} x &= 2 - y \\ x - 7y &= -6 \end{aligned}$

5. $\begin{aligned} 3y &= x \\ 5x + 2y &= 17 \end{aligned}$

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

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

8. $\begin{aligned} 5x - y &= 10 \\ 10x - y &= 10 \end{aligned}$

9. $\begin{aligned} 9x + 3y &= -3 \\ 4x - y &= 8 \end{aligned}$

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