

Algebra 1B: Mrs. Tilus
Unit 6- Day 4: Solve by Substitution

Name: Key

Solve each system of equations by using substitution.

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

$(1, 7)$

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

$(9, 4)$

$$\begin{aligned} 3. \quad 5x + 6y &= 32 \\ 12y - 4x &= 8 \end{aligned}$$

$(4, 2)$

$$\begin{aligned} 4. \quad 3x - 4y &= -27 \\ 2x + y &= -7 \end{aligned}$$

$(-5, 3)$

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

$(-2, 2)$

$$\begin{aligned} 6. \quad 6x + 10y &= 4 \\ 3x + 5y &= 12 \end{aligned}$$

No Solution: \emptyset

Solve each system of equations by using substitution

$$\begin{aligned} 7. \quad y &= 6x - 17 \\ 3x - 6y &= -30 \end{aligned}$$

$$(4, 7)$$

$$\begin{aligned} 8. \quad x &= y - 4 \\ 6x + 5y &= -46 \end{aligned}$$

$$(-6, -2)$$

$$\begin{aligned} 9. \quad 7x + y &= -26 \\ 12x + 11y &= 39 \end{aligned}$$

$$(-5, 9)$$