

Systems of Equations Special Cases.

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Date _____ Period _____

Solve each system by elimination.

1)
$$\begin{aligned} 3x + 5y &= 1 \\ -6x - 10y &= 14 \end{aligned}$$

2)
$$\begin{aligned} -3x + 4y &= 3 \\ -12x + 16y &= 8 \end{aligned}$$

3)
$$\begin{aligned} 7x + 3y &= 0 \\ 14x + 6y &= 0 \end{aligned}$$

4)
$$\begin{aligned} 4x + 16y &= 16 \\ -2x - 8y &= -6 \end{aligned}$$

5)
$$\begin{aligned} -16x - 20y &= 12 \\ -8x - 10y &= 6 \end{aligned}$$

6)
$$\begin{aligned} -7x - 2y &= 0 \\ 14x + 7y &= 0 \end{aligned}$$

Solve each system by substitution.

$$\begin{aligned} 7) \quad x - 8y &= 1 \\ -3x - 6y &= -3 \end{aligned}$$

$$\begin{aligned} 8) \quad 2x + 14y &= 4 \\ x + 7y &= 7 \end{aligned}$$

$$\begin{aligned} 9) \quad 6x + y &= -1 \\ -6x - 4y &= 4 \end{aligned}$$

$$\begin{aligned} 10) \quad 2x + y &= -3 \\ -6x - 3y &= -2 \end{aligned}$$

$$\begin{aligned} 11) \quad -3x + 12y &= 9 \\ x - 4y &= -3 \end{aligned}$$

$$\begin{aligned} 12) \quad 3x + 6y &= 0 \\ x + 2y &= 0 \end{aligned}$$

Systems of Equations Special Cases.

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Solve each system by elimination.

1) $3x + 5y = 1$
 $-6x - 10y = 14$

No solution

2) $-3x + 4y = 3$
 $-12x + 16y = 8$

No solution

3) $7x + 3y = 0$
 $14x + 6y = 0$

Infinite number of solutions

4) $4x + 16y = 16$
 $-2x - 8y = -6$

No solution

5) $-16x - 20y = 12$
 $-8x - 10y = 6$

Infinite number of solutions

6) $-7x - 2y = 0$
 $14x + 7y = 0$

 $(0, 0)$

Solve each system by substitution.

$$\begin{aligned} 7) \quad & x - 8y = 1 \\ & -3x - 6y = -3 \\ & (1, 0) \end{aligned}$$

$$\begin{aligned} 8) \quad & 2x + 14y = 4 \\ & x + 7y = 7 \\ & \text{No solution} \end{aligned}$$

$$\begin{aligned} 9) \quad & 6x + y = -1 \\ & -6x - 4y = 4 \\ & (0, -1) \end{aligned}$$

$$\begin{aligned} 10) \quad & 2x + y = -3 \\ & -6x - 3y = -2 \\ & \text{No solution} \end{aligned}$$

$$\begin{aligned} 11) \quad & -3x + 12y = 9 \\ & x - 4y = -3 \\ & \text{Infinite number of solutions} \end{aligned}$$

$$\begin{aligned} 12) \quad & 3x + 6y = 0 \\ & x + 2y = 0 \\ & \text{Infinite number of solutions} \end{aligned}$$