

Simultaneous Equations – Elimination Method**Level – Near Genius**

1. Solve these systems of equations using the elimination method. Check your answers.

a.
$$\begin{aligned}x + y &= 5 \\ -x + 2y &= 1\end{aligned}$$

b.
$$\begin{aligned}4x - y &= 9 \\ 2x + y &= 3\end{aligned}$$

c.
$$\begin{aligned}3x + 4y &= 7 \\ -3x - y &= -13\end{aligned}$$

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

Level – Genius

2. Solve these systems of equations using the elimination method. Check your answers.

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

b.
$$\begin{aligned}3x - 2y &= 4 \\ 2x + y &= 12\end{aligned}$$

c.
$$\begin{aligned}3x + 2y &= 9 \\ x - 3y &= -19\end{aligned}$$

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

Level - SuperGenius

3. Solve this system of equations using the elimination method.

$$\begin{aligned}4x - 2y &= -38 \\ 2x + 3y &= 1\end{aligned}$$

Level – MegaGenius

4. Solve this system of equations using the elimination method.

HINT: Start by multiplying Equation 1 by 3 and Equation 2 by 2.

$$\begin{aligned}2x - 3y &= -4 \\ -3x + 5y &= 7\end{aligned}$$