

Elimination Method - Example 4

Elimination Method - Example 4

Example: Find the solutions to the system:

$$4x + 2y = 8$$

$$-4x - 3y = -10$$

Elimination Method - Example 4

Example: Find the solutions to the system:

$$4x + 2y = 8$$

$$-4x - 3y = -10$$

Here, it will be easier to **add** rather than **subtract** the **red** and **blue** sides so that the x 's cancel.

Elimination Method - Example 4

Example: Find the solutions to the system:

$$\begin{array}{r} \cancel{4x} + 2y = 8 \\ \cancel{-4x} - 3y = -10 \end{array}$$

$$-y = -2$$

Here, it will be easier to **add** rather than **subtract** the **red** and **blue** sides so that the x 's cancel.

Elimination Method - Example 4

Example: Find the solutions to the system:

$$\begin{array}{r} \cancel{4x} + 2y = 8 \\ \cancel{-4x} - 3y = -10 \end{array}$$

$$-y = -2$$

Here, it will be easier to **add** rather than **subtract** the **red** and **blue** sides so that the x 's cancel.

Now, we can multiply by -1 to get: $y = 2$

Elimination Method - Example 4

Example: Find the solutions to the system:

$$\begin{array}{r} \cancel{4x} + 2y = 8 \\ \cancel{-4x} - 3y = -10 \end{array}$$

$$-y = -2$$

Here, it will be easier to **add** rather than **subtract** the **red** and **blue** sides so that the x 's cancel.

Now, we can multiply by -1 to get: $y = 2$

Using this in the first equation, we get: $4x + 2 \cdot 2 = 8$

Elimination Method - Example 4

Example: Find the solutions to the system:

$$\begin{array}{r} \cancel{4x} + 2y = 8 \\ \cancel{-4x} - 3y = -10 \end{array}$$

$$-y = -2$$

Here, it will be easier to **add** rather than **subtract** the **red** and **blue** sides so that the x 's cancel.

Now, we can multiply by -1 to get: $y = 2$

Using this in the first equation, we get: $4x + 2 \cdot 2 = 8$

Which, we can simplify to get:

$$4x + 2 \cdot 2 = 8$$

Elimination Method - Example 4

Example: Find the solutions to the system:

$$\begin{array}{r} \cancel{4x} + 2y = 8 \\ \cancel{-4x} - 3y = -10 \end{array}$$

$$-y = -2$$

Here, it will be easier to **add** rather than **subtract** the **red** and **blue** sides so that the x 's cancel.

Now, we can multiply by -1 to get: $y = 2$

Using this in the first equation, we get: $4x + 2 \cdot 2 = 8$

Which, we can simplify to get:

$$4x + 4 = 4x + 2 \cdot 2 = 8$$

Elimination Method - Example 4

Example: Find the solutions to the system:

$$\begin{array}{r} \cancel{4x} + 2y = 8 \\ \cancel{-4x} - 3y = -10 \end{array}$$

$$-y = -2$$

Here, it will be easier to **add** rather than **subtract** the **red** and **blue** sides so that the x 's cancel.

Now, we can multiply by -1 to get: $y = 2$

Using this in the first equation, we get: $4x + 2 \cdot 2 = 8$

Which, we can simplify to get:

$$4x + 4 = 4x + 2 \cdot 2 = 8$$

Now, **Subtracting 4** we get: $4x = 4$

Elimination Method - Example 4

Example: Find the solutions to the system:

$$\begin{array}{r} \cancel{4x} + 2y = 8 \\ \cancel{-4x} - 3y = -10 \end{array}$$

$$-y = -2$$

Here, it will be easier to **add** rather than **subtract** the **red** and **blue** sides so that the x 's cancel.

Now, we can multiply by -1 to get: $y = 2$

Using this in the first equation, we get: $4x + 2 \cdot 2 = 8$

Which, we can simplify to get:

$$4x + 4 = 4x + 2 \cdot 2 = 8$$

Now, **Subtracting 4** we get: $4x = 4$

And **Dividing by 4** we get: $x = 1$

Elimination Method - Example 4

Example: Find the solutions to the system:

$$\begin{array}{r} \cancel{4x} + 2y = 8 \\ \cancel{-4x} - 3y = -10 \end{array}$$

$$-y = -2$$

Here, it will be easier to **add** rather than **subtract** the **red** and **blue** sides so that the x 's cancel.

Now, we can multiply by -1 to get: $y = 2$

Using this in the first equation, we get: $4x + 2 \cdot 2 = 8$

Which, we can simplify to get:

$$4x + 4 = 4x + 2 \cdot 2 = 8$$

Now, **Subtracting 4** we get: $4x = 4$

And **Dividing by 4** we get: $x = 1$

Conclusion: $(1, 2)$ is the solution to the system