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Example: Find the solution to:

$$\begin{aligned} 2x - 3y &= -11 \\ 3x + 2y &= 3 \end{aligned}$$

Here, if we add the left hand sides we get:

$$2x - 3y + 3x + 2y = 5x - y$$

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$$6x - 9y - (6x + 4y) = -33 - 6$$

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Adding 9 to both sides gives: $2x = -2$

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And Dividing by 2 gives: $x = -1$

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Conclusion: $(-1, 3)$ is the solution to the system