

You may have made an error when attempting to eliminate a variable. A system has no solution only if you end up with an equation such as $1 = 0$. This system has the unique solution $(-1, 4, 2)$. The correct answer is the system with $x + 2y - 3z = 4$, $-x - y + 4z = 6$, and $x + 6y + z = 2$.