

YOUR NAME: _____

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Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. "The sum of two numbers is 42 and their difference is 12."
 - (a) Write a system of two equations in two variables that accurately reflects the English statement above.

 - (b) Use either substitution or addition (elimination) to find the two numbers.

2. Use the addition method to solve the system
$$\begin{cases} x + 2y - z = -6 \\ x + 7y + 2z = -7 \\ 2x - 2y - z = 3 \end{cases}$$