1. AX = B:

 $X = A^{-1}B$

2. (A^2)X + B = 0:

$$X = -A^{(-2)}B$$

3. AXB = C:

$$X = A^{-1}C * B^{-1}$$

4. AX + BX = C:

$$X = (A + B)^{-1}C$$

5. ACX = 0:

 $X = A^{-1}C^{-1}$

- X = 0: You can set the matrix X to be the zero matrix, [[0, 0], [0, 0]].
 This solution trivially satisfies the equation since any matrix multiplied by the zero matrix gives the zero matrix.
- 2. Using the Formula X = A⁻¹C⁻¹: You can calculate the inverses of matrices A and C (if they are invertible), and then use the formula X = A⁻¹C⁻¹. This will give you a matrix X that satisfies the equation ACX = 0.

Both approaches are valid and will provide solutions that satisfy the equation ACX = 0. The first approach (X = 0) is a specific solution, while the second approach (X = $A^{-1}C^{-1}$) is more general and uses the properties of matrix inverses.