

MATRIX A

$$\begin{bmatrix} 2 & 5 & 7 \\ -2 & -1 & 8 \\ -3 & 4 & 6 \end{bmatrix}$$

MATRIX B

$$\begin{bmatrix} 11 & -3 & 5 \\ 7 & 2 & 5 \\ 3 & 5 & 8 \end{bmatrix}$$

MATRIX C

$$\begin{bmatrix} 1 & -2 \\ 3 & 9 \\ -1 & 5 \end{bmatrix}$$

MATRIX D

$$\begin{bmatrix} 2 & 5 & 7 \\ -2 & 8 & -1 \end{bmatrix}$$

MATRIX E

$$\begin{bmatrix} 12 & -3 \\ 5 & -2 \end{bmatrix}$$

1. $\det(A) =$

2. $\det(B) =$

3. $\det(C) =$

4. $\det(E) =$

5. $[A] \times [B]$

6. $[B] \times [A]$

7. $[B] \times [C]$

8. $[C] \times [B]$

9. $[A] + [B]$

10. $[D]([A] + [B])$

11. $3 \cdot [A]$

12. $[D] \times [C]$

13. $[E] \times [C]$

14. $[A] \times [A]$

15. $[C] + [D]$

16. $[E] \times [D]$

SOLVE THIS SYSTEM OF EQUATIONS USING CRAMER'S RULE:

$$x + y + z = 31$$

$$2x + y - z = -43$$

$$-4x - y + 2z = 59$$

Coefficient matrix:

Determinant of the coefficient matrix:

X matrix:

Determinant of the X matrix:

Y matrix:

Determinant of the Y matrix:

Z matrix:

Determinant of the Z matrix:

$$x =$$

$$y =$$

$$z =$$