

Determinante WW

1. $0 - 16 = \boxed{-16}$

2. $1 - 20 = \boxed{-19}$

3. $-60 - 40 = \boxed{-100}$

4. $5 - 72 = \boxed{-67}$

5. $28 - (-77) = \boxed{105}$

6. $-6 - (-6) = \boxed{0}$

7. $44 - 54 = \boxed{-10}$

8. $0 - (-6) = \boxed{6}$

9. $(0 + 0 + 30) - (0 + 3 + 36) = 30 - 39 = \boxed{-9}$

10. $(2 + -6 + 70) - (-21 + 5 + 8) = 66 - (-8) = \boxed{74}$

11. $(-10 + 0 + 24) - (5 + 0 + -24) = 14 - (-19) = \boxed{33}$

12. $(-27 + -480 + -40) - (-45 + 96 + 120) = -547 - 171 = \boxed{-718}$

13 + 16 $\begin{bmatrix} + & - & + \\ - & + & - \\ + & - & + \end{bmatrix}$

13. Column 1: $-4 \begin{vmatrix} 8 & 9 \\ 3 & 7 \end{vmatrix} - 0 \begin{vmatrix} 0 & 1 \\ 3 & 7 \end{vmatrix} + 0 \begin{vmatrix} 0 & 1 \\ 8 & 9 \end{vmatrix} = -4(56 - 27) = -4(29) = \boxed{-116}$

14. Row 2: $0 \begin{vmatrix} 6 & -3 \\ 9 & 11 \end{vmatrix} + 1 \begin{vmatrix} 4 & -3 \\ 3 & 11 \end{vmatrix} - 1 \begin{vmatrix} 4 & 6 \\ 3 & 9 \end{vmatrix}$

$$= 1(44 - -9) - 1(36 - 18)$$

$$= 53 - 18 = \boxed{35}$$

$$\begin{aligned}
 15. \text{ Row 1: } & 5 \begin{vmatrix} 6 & -3 \\ 1 & 4 \end{vmatrix} - 3 \begin{vmatrix} 1 & -3 \\ -2 & 4 \end{vmatrix} + 2 \begin{vmatrix} 1 & 6 \\ -2 & 1 \end{vmatrix} \\
 & = 5(24 - -3) + 3(4 - 6) + 2(1 - -12) \\
 & = 5(27) + 3(-2) + 2(13) = \boxed{155}
 \end{aligned}$$

$$\begin{aligned}
 16. \text{ Row 1: } & 8 \begin{vmatrix} 2 & 0 \\ 4 & 2 \end{vmatrix} - 0 \begin{vmatrix} 3 & 0 \\ 6 & 2 \end{vmatrix} + 0 \begin{vmatrix} 3 & 2 \\ 6 & 4 \end{vmatrix} \\
 & = 8(4 - 0) = 8(4) = \boxed{32}
 \end{aligned}$$

$$\begin{aligned}
 17. \quad & 2x - 6 = 2 \\
 & 2x = 8 \\
 & \boxed{x = 4}
 \end{aligned}$$

$$\begin{aligned}
 18. \quad & x^2 - 12 = 7x \\
 & x^2 - 7x + 12 = 0 \\
 & (x - 4)(x - 3) = 0 \\
 & \boxed{x = 4 \quad x = 3}
 \end{aligned}$$

$$\begin{aligned}
 19. \quad & (x^2 + -24 + -2) - (-4 + -2x + 6x) = 10 \\
 & (x^2 - 26) - (4x - 4) = 10 \\
 & x^2 - 26 - 4x + 4 = 10 \\
 & x^2 - 4x - 32 = 0 \\
 & (x - 8)(x + 4) = 0 \\
 & \boxed{x = 8 \quad x = -4}
 \end{aligned}$$

$$\begin{aligned}
 20. \quad & (10x^2 + 0 + 42) - (60 + -4x + 0) = 8x^2 - 3x + 12 \\
 & 10x^2 + 42 + 4x - 60 = 8x^2 - 3x + 12 \\
 & 2x^2 + 7x - 30 = 0 \\
 & (2x - 5)(x + 6) = 0 \\
 & \boxed{x = 5/2 \quad x = -6}
 \end{aligned}$$