$$\det\begin{bmatrix} 1 & 2 & 3 \\ 8 & 6 & 4 \\ 7 & 4 & 9 \end{bmatrix} \overset{\text{سطر اول}}{=} (-1)^{1+1}\times 1\times\begin{vmatrix} 6 & 4 \\ 4 & 9 \end{vmatrix} + (-1)^{1+2}\times 2\times\begin{vmatrix} 8 & 4 \\ 7 & 9 \end{vmatrix} + (-1)^{1+3}\times 3\times\begin{vmatrix} 8 & 6 \\ 7 & 4 \end{vmatrix}$$

$$\det = (54-16)-2(72-28)+3(32-42) = \boxed{-34}$$

$$\det\begin{bmatrix} x+1 & x+2 & x+3 \\ x+4 & x+5 & x+6 \\ x+7 & x+8 & x+9 \end{bmatrix} \overset{\text{سطر اول}}{=} (-1)^{1+1}\times(x+1)\begin{vmatrix} x+5 & x+6 \\ x+8 & x+9 \end{vmatrix} + (-1)^{1+2}\times(x+2)\begin{vmatrix} x+4 & x+6 \\ x+7 & x+9 \end{vmatrix} + (-1)^{1+3}\times(x+3)\begin{vmatrix} x+4 & x+5 \\ x+7 & x+8 \end{vmatrix}$$

$$= (x+1)\left[(x+5)(x+9)-(x+6)(x+8)\right] - (x+2)\left[(x+4)(x+9)-(x+6)(x+7)\right] + (x+3)\left[(x+4)(x+8)-(x+5)(x+7)\right]$$

$$= x^2+14x+45-x^2-14x-48-x^2-13x-42+x^2+12x+35 = \boxed{-x-10}$$

$$\det\begin{bmatrix} x & x^{2} & x^{3} \\ x^{4} & x^{5} & x^{6} \\ x^{7} & x^{8} & x^{9} \end{bmatrix} \overset{\text{سطر اول}}{=} x^{1}(-1)^{1+1}\begin{vmatrix} x^{5} & x^{6} \\ x^{8} & x^{9} \end{vmatrix} + x^{2}(-1)^{1+2}\begin{vmatrix} x^{4} & x^{6} \\ x^{7} & x^{9} \end{vmatrix} +$$

$$+ x^{3}(-1)^{1+3}\begin{vmatrix} x^{4} & x^{5} \\ x^{7} & x^{8} \end{vmatrix} = x(x^{9} - x^{8}) - x^{2}(x^{9} - x^{7}) + x^{3}(x^{8} - x^{7})$$

$$= x^{11}(x^{3} - 1) - x^{10}(x^{2} - 1) + x^{9}(x^{4} - 1)$$