1 16

2

$$(1) \det(A) = -21$$

(2)
$$\tilde{A} = \begin{pmatrix} 6 & -7 & -5 \\ -9 & -7 & 4 \\ -3 & 7 & -1 \end{pmatrix}$$

(3)
$$A^{-1} = -\frac{1}{21} \begin{pmatrix} 6 & -7 & -5 \\ -9 & -7 & 4 \\ -3 & 7 & -1 \end{pmatrix}$$

$$3 \quad x = 1, \ y = 1, \ z = 2$$

| 特別問題 |
$$\det \begin{pmatrix} 1 & a & a^2 & bcd \\ 1 & b & b^2 & acd \\ 1 & c & c^2 & abd \\ 1 & d & d^2 & abc \end{pmatrix} = (b-a)(c-a)(d-a)(c-b)(d-b)(c-d)$$