

PRACTICE 4b: Find the following determinants, using the definition of the determinant:

$$(1) \begin{bmatrix} 5 & 2 & 4 \\ 1 & 3 & 1 \\ 3 & 2 & 2 \end{bmatrix} \quad (2) \begin{bmatrix} 1 & -1 & 1 \\ 2 & 3 & 2 \\ 2 & -2 & 1 \end{bmatrix}$$

$$(3) \begin{bmatrix} -7 & 3 & 8 \\ 6 & 6 & -2 \\ 5 & 4 & 9 \end{bmatrix} \quad (4) \begin{bmatrix} 0 & 4 & 0 \\ 7 & 0 & 0 \\ 0 & 0 & 3 \end{bmatrix}$$