

### EXERCISES OF SECTION 3.1

**Question 1.** Compute  $\det \begin{bmatrix} 0 & 0 & 1 \\ 0 & 2 & 0 \\ 3 & 0 & 0 \end{bmatrix}$ .

**Question 2.** Compute  $\det(A)$ , where

$$A = \begin{bmatrix} 0 & 0 & 0 & 1 \\ 0 & 0 & 2 & 0 \\ 0 & 3 & 0 & 0 \\ 4 & 0 & 0 & 0 \end{bmatrix}.$$

**Question 3.** If two rows of  $A$  are the same, then  $|A| = ?$

**Question 4.** Suppose that  $A$  is an  $n \times n$  matrix,  $|cA| = ?$