

Problem 1: Let A be an $n \times n$ matrix, and B the matrix obtained from A by multiplying the i -th column of A by a number α . Show that $\det B = \alpha \det A$.

Problem 2: Let A be an $n \times n$ matrix, and B the matrix obtained from A by adding a multiple of the j -th column to the i -th column. Show that $\det B = \det A$.