Linear Algebra, EE 10810/EECS 205004
Quiz $4.1 - 4.2$

Student ID: ....; Your Name: ....
(Dated: November 18th, 2020)

Integrity: There is NO space to cross the **Red Line** !!

1. Prove that $det(\overline{\overline{A}}\,\overline{\overline{B}}) = det(\overline{\overline{A}}) \cdot det(\overline{\overline{B}})$ for any $\overline{\overline{A}}, \overline{\overline{B}} \in \overline{\overline{M}}_{2\times 2}(F)$.

2. Compute the determinants of the following matrix in $\overline{\overline{M}}_{3\times 3}(C)$:

$$\begin{pmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{pmatrix} \tag{1}$$