PURDUE UNIVERSITY · MA 26200
DIFFERENTIAL EQUATIONS AND LINEAR
ALGEBRA

QUIZ
Xinyu Liu
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Quiz 06

Properties of Determinants

(10 points) Find following determinants where $\begin{vmatrix} a & b & c \\ d & e & f \\ g & h & i \end{vmatrix} = 5.$

(No partial credits)

(a) $\begin{vmatrix} a & b & c \\ d+3a & e+3b & f+3c \\ g & h & i \end{vmatrix} = $ _____.

(b) $\begin{vmatrix} a & b & c \\ 2d+a & 2e+b & 2f+c \\ g & h & i \end{vmatrix} = $ _____.

(10 points) Let $A = \begin{bmatrix} 1 & 0 & 0 \\ 2 & 2 & 0 \\ 3 & 3 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 0 & 0 \\ 9 & 2 & 2 \\ -70 & 2 & 3 \end{bmatrix}$.

What is the determinates of $A^3 B^8$?

(A)6^{11} (B) 0   (C) 6^5 (D) -6^5

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