

THIS IS A NO GRAPHING CALCULATOR QUIZ

[4 POINTS] If $A = \begin{bmatrix} -2 & 1 \\ 1 & 2 \end{bmatrix}$,

(a) Find A^{-1} .

(b) Find A^2 .

[4 POINTS] The inverse of $\begin{bmatrix} 2 & -17 & 11 \\ -1 & 11 & -7 \\ 0 & 3 & -2 \end{bmatrix}$ is $\begin{bmatrix} 1 & 2 & 3 \\ 2 & 4 & -3 \\ 3 & 6 & -5 \end{bmatrix}$.

$$2x - 17y + 11z = -2$$

Use that information to solve the system of linear equations $-x + 11y - 7z = 1$

$$3y - 2z = -1$$

[5 POINTS]

Evaluate

$$\begin{vmatrix} 3 & 1 & 2 & 0 \\ -4 & 6 & 0 & 0 \\ -4 & -2 & 1 & 2 \\ 4 & -7 & 0 & 0 \end{vmatrix}$$

by expanding on the row(s)/column(s) that make the computation the easiest.

[7 POINTS]

Find the partial fraction decomposition of $\frac{x^2 + 12x + 12}{x^3 - 4x}$.