Math 1313 Online

Week 4

Popper 8(Wednesday's Lecture)

Instructions

- Homework will NOT be accepted through email or in person. Poppers must be submitted through CourseWare. BEFORE the deadline.
- Submit the completed assignment at http://www.casa.uh.edu under "EMCF" and choose Popper 8.

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1. Do not ask on the discussion board, what was the answer to question 1 from Wednesday's lecture, so mark the same answer according to the video?

2. Do not ask on the discussion board, what was the answer to question 2 from Wednesday's lecture, so mark the same answer according to the video?

3. Find the determinant of

$$\begin{pmatrix} -3 & 10 \\ 11 & 7 \end{pmatrix}$$

   a. 89
   b. -22
   c. 3
   d. -131
   e. None of the above

4. Given the linear system of equations. How would you set up using the coefficient matrix to solve the system?

$$x + 4y = 3$$
$$2x + 3y = 1$$

   a. $X = \begin{pmatrix} -3 & 4 \\ 2 & -1 \end{pmatrix} \begin{pmatrix} 3 \\ 1 \end{pmatrix}$

   b. $X = \begin{pmatrix} 1 & 4 \\ 2 & 3 \end{pmatrix} \begin{pmatrix} 3 \\ 1 \end{pmatrix}$

   c. $X = \begin{pmatrix} 1 & -\frac{1}{4} \\ -\frac{1}{2} & 3 \end{pmatrix} \begin{pmatrix} 3 \\ 1 \end{pmatrix}$

d. $X = \begin{pmatrix} \frac{1}{3} & -\frac{1}{4} \\ -\frac{1}{2} & 1 \end{pmatrix} \begin{pmatrix} 3 \\ 1 \end{pmatrix}$

e. $X = \begin{pmatrix} -\frac{3}{5} & \frac{4}{5} \\ \frac{2}{5} & -\frac{1}{5} \end{pmatrix} \begin{pmatrix} 3 \\ 1 \end{pmatrix}$

5. Find the inverse of

$$\begin{pmatrix} -1 & 5 \\ 1 & -4 \end{pmatrix}$$

a. $\begin{pmatrix} -4 & 1 \\ 5 & -1 \end{pmatrix}$

b. $\begin{pmatrix} -1 & -3 \\ -5 & -4 \end{pmatrix}$

c. $\begin{pmatrix} -4 & -5 \\ -1 & -1 \end{pmatrix}$

d. $\begin{pmatrix} 4 & 5 \\ 1 & 1 \end{pmatrix}$

e. None of the above