

# Math 1313 Online

## Week 3

### Popper 5(Monday's Lecture)

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#### 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 5.
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1. Do not ask on the discussion board, what was the answer to question 1 from Monday'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 Monday's lecture, so mark the same answer according to the video?
3. State the operation needed for the next appropriate step, in reducing the following matrix

$$\begin{pmatrix} 1 & 2 & -2 & 6 \\ 3 & -4 & 0 & 8 \\ -2 & 4 & 5 & -6 \end{pmatrix}$$

- a.  $-\frac{1}{4}R_2 \rightarrow R_2$
  - b.  $-3 + R_2 \rightarrow R_2$
  - c.  $\frac{1}{5}R_3 \rightarrow R_3$
  - d.  $2R_1 + R_3 \rightarrow R_3$
4. Solve the following system of linear equations using the Gauss-Jordan elimination method for the variable y.

$$\begin{aligned} -x + y &= -1 \\ 3x - 2y &= 0 \\ 2x - y &= 4 \end{aligned}$$

- a.  $y = 1$
- b.  $y = 3$
- c.  $y = z$ , where z is any real number

- d.  $y = 2$
- e. No Solution

5. Is the following matrix row reduced?

$$\begin{pmatrix} 1 & 1 & 0 & -5 \\ 0 & 0 & 1 & 3 \end{pmatrix}$$

- a. Yes
- b. No