Math 214-007

September 9

Logistics

- Gateway exam: 9 days remain! Due September 18
- 27 people have passed (out of 55)
  - We're #1! 🥳
- Written homework 1 and WebWork 1 are both due tonight at 11:59pm
- Submit homework 1 on gradescope
- Project 1: due Sunday, October 2
- Project 1 teams are up on the course webpage:
  http://www.math.lsa.umich.edu/courses/214/projects.html
- For bonus points: fill out the poll at that link by **Wednesday 9/14**

Exit ticket responses

- Pokemon: Gen 1, Jolteon
- Do we always need to use RREF when solving systems of linear equations?
  - No! Unless specified
- What does RREF of the augmented matrix look like if there are no solutions?
  - The row [0 0 ... 0 | 1] appears

Questions (continued)

- What is the equation of the line x = 2+z, y = 1-2z ? (from Aug 31 lecture)
  - Can't do it in just one equation!
  - Alternate form:

    x = 2 + z
    y = 1 - 2z
    z = z

$$\begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 2 \\ 1 \\ 0 \end{bmatrix} + t \begin{bmatrix} 1 \\ -2 \\ 1 \end{bmatrix}, \quad t \in \mathbb{R}$$