Name: **Recitation Section:**

MATH 2802 N1-N3 QUIZ 1
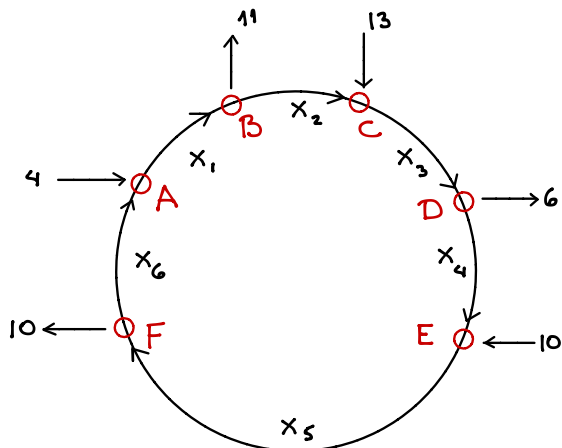
JANUARY 19TH, 2018

The quiz has a total of 10 points and you have 10 minutes. Read carefully.

(1) (**2 points each**) For each of the following statements, circle the correct answer (row or column):

Let A be an $n \times m$ matrix and b be a vector in $\mathbb{R}^m$.
- If all   **rows**   /   **columns**   of A have a pivot,
  then there is a unique solution to the system.

- If all   **rows**   /   **columns**   of A have a pivot,
  then there is no $b \in \mathbb{R}^m$ that makes the equation inconsistent.

(2) (**2pts**) Translate the traffic flow diagram to a system of linear equations

(3) (**1 point each**) From the system of linear equations of previous question. Write down the asociated
  (a) augmented matrix,
  (b) vector equation,
  (c) matrix equation,
  (d) homogeneous matrix equation.