

MATH 3191 Written Homework 2  
\_\_\_\_/20 points

Name: \_\_\_\_\_

Due: February 2nd

1. (10 points) Find the solution  $\boldsymbol{x}$  to the following linear system of equations

$$\begin{bmatrix} 2 & 1 & 3 \\ 0 & 1 & 1 \\ 2 & 0 & 5 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} 16 \\ 9 \\ 10 \end{bmatrix}$$

2. (10 points) Write out the solution set for the following homogeneous system

$$\begin{bmatrix} 5 & 1 & -13 \\ 2 & 5 & 4 \\ 1 & 1 & -1 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \end{bmatrix} = \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}$$