

# Math 4133 - Linear Algebra

Quiz #6 - 2014.02.12

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

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Consider the matrices:

$$A = \begin{bmatrix} 1 & 2 & 2 & -1 \\ 0 & 1 & 2 & -1 \\ 0 & 0 & 1 & 4 \\ 0 & 0 & 0 & 1 \end{bmatrix}, \quad B = \begin{bmatrix} 1 \\ -9 \\ -5 \\ 1 \end{bmatrix}$$

1. Compute the determinant of  $A$ .

2. Solve the equation  $AX = B$ , where  $X = [x_1 \ x_2 \ x_3 \ x_4]^T$ .