

MTH 261 Graded HW 4

Name \_\_\_\_\_

This assignment is due at 6:00 PM on Wednesday, May 10

You should not be working on this in class right before it is due; you have a week to get this done – it should be done well before ten minutes before it is due.

1. Let  $A = \begin{bmatrix} 3 & 2 & -4 \\ -1 & 1 & 6 \\ 2 & 5 & 3 \end{bmatrix}$ . Use the determinant and adjoint of  $A$  to calculate  $A^{-1}$ . To earn full credit

your work must be shown on this paper in a manner consistent with what was illustrated in class. Make sure that you show work consistent with that shown in the lecture notes Example 5.10.

2. Determine the linear transformation matrix for  $T$  given that  $T\left(\begin{bmatrix} 3 \\ 7 \end{bmatrix}\right) = \begin{bmatrix} 7 \\ 32 \end{bmatrix}$  and  $T\left(\begin{bmatrix} 1 \\ 3 \end{bmatrix}\right) = \begin{bmatrix} 1 \\ 14 \end{bmatrix}$ .  
Make sure that you show work consistent with that shown in the lecture notes Example 6.9.