MATH 260, Homework 2, Fall '14
Due: September 5, 2014 at 2:20 PM
Honor Code: **Name:**
Section:

1) (10 pts) Find: $3\mathbf{X}^2 + \mathbf{Y}^T$ for $\mathbf{X}$ and $\mathbf{Y}$ given below. You MUST show intermediate calculations to get full credit.

$$\mathbf{X} = \begin{bmatrix} 1 & 2 & 0 \\ -3 & 2 & 1 \\ 1 & 0 & -4 \end{bmatrix} \quad \mathbf{Y} = \begin{bmatrix} 0 & 1 & w \\ 1 & -z & 3 \\ 0 & 4 & -2 \end{bmatrix}$$

2) (15 pts) Evaluate the following if the operation is defined. If it is not, say why not.

$$A = \begin{bmatrix} 2 & 1 & 0 \\ 3 & -1 & 1 \end{bmatrix}, B = \begin{bmatrix} 1 & 0 \\ 3 & -2 \\ 1 & 1 \end{bmatrix}, C = \begin{bmatrix} 4 & -2 \\ -1 & 1 \end{bmatrix}.$$

a) $A + B^T$

b) BC

c) AC