

Name: _____
Student ID #: _____

Mini-Quiz # 1
MAT-022A-Summer Session II (8/5/09)

You have 5 minutes. You may only use a pencil (or pen) and scrap paper. No calculators, notes or books.

1. Let

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

Now calculate the following or, if undefined say so (1 point each).

(a) $3u - 2v$

(b) $u \cdot v$

(c) $u \cdot w$

(d) A^2

(e) BC

(f) Bv

(g) Bw

(h) Cw

(i) $B + B^T$

(j) $B + C^T$