

# Quiz 6

MATH 221-02

March 20, 2015

Chapter 3.

Let  $A = \begin{pmatrix} 1 & 3 & 0 & 0 \\ 2 & 6 & 1 & 0 \end{pmatrix}$ .

1. Find a basis for  $C(A)$ . SHOW YOUR WORK!

2. Find a basis for  $R(A)$ . SHOW YOUR WORK!

3. Find a basis for  $N(A)$ . SHOW YOUR WORK!

4. Write out the “blob diagram” that clearly shows where the domain of  $A$ ,  $C(A)$ ,  $R(A)$ ,  $N(A^T)$ , and  $N(A)$  reside, and indicates the dimensionality of each of these 5 vector spaces.