

**Assignment for VECTOR SPACES lecture**

Page 287 (at the end of Section 6.2)

#1-5, 6b, c, 7a, 8b, c 14, 18, 25a, 26b, T3, T6

And the following:

Q1: Give an example of a 3 by 3 matrix A so that  $\text{row}(A) =$  all vectors of the form  $(a, b, 0)$  where a and b are any real numbers.

Q2: Give an example of a 3 by 3 matrix A so that  $\text{col}(A) = \mathbb{R}^3$ .

Q3. Give an example of a 4 by 3 matrix A so that  $\text{row}(A) = \mathbb{R}^3$ .

Q2: Give an example of a 4 by 3 matrix A so that  $\text{col}(A) =$  all vectors of the form  $\begin{bmatrix} a \\ 0 \\ 0 \\ 0 \end{bmatrix}$  where a is

any real number.

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