74 ~~53~~

3. Define "null space".

The nullspace of the matrix A is the set of all column vectors x with $Ax=0$.

4. Define "span". The vectors $v_1,\dots,v_p$ in the vector space V span V if every vector in V can be written as a linear combination of $v_1,\dots,v_p$.

5. Let V be the vector space of polynomials $f(x)$ of degree at most three with $f(1)=0$. Record a basis for V. No justification is needed.

$x-1,\ x^2-1,\ x^3-1$