

**MATH381**

test #1, 09/08/16

Total 100

Topics to be covered

1. Solutions of systems of linear equations, free and basic variables.
2. Solutions of systems of linear inequalities in  $\mathbf{R}^2$ .
3. Matrix operations: product, transposition.
4. Linear dependence/independence of a vector set.
5. Permutations and combinations (see e.g.  
<http://www.math.uiuc.edu/~wgreen4/Math124S07/PermuCombinations.pdf>).