

## Assignment 2

1. A system with fewer equations than unknowns is an *underdetermined system*. A system with more equations than unknowns is an *overdetermined system*.
  - (a) Explain why an consistent, underdetermined system must have infinitely many solutions.
  - (b) Can an overdetermined system have no solutions? one solution? infinitely many solutions? Explain why and give examples!
2. Write the vectors  $u, v, w, z$  in terms of  $a$  and  $b$ .

