

MATH 1300 (A02), January 12, 2016

Consider an augmented matrix $M = [A|\mathbf{b}]$ of a linear system of equations. It is in *row echelon form* if:

1. If a row of M does not consist entirely of zeroes, then the *first* (left-to-right) non-zero entry in that row is a “1”, called *the leading 1* of that row. (Also called “pivot”)
2. All rows of M consisting entirely of zeroes, if any, are grouped together at the bottom of the matrix.
3. In any two successive rows with a leading 1, the leading 1 in the lower row occurs *to the right* of the leading 1 in the upper row.

If in addition:

4. In any column containing a leading 1, all other entries are zero.

then we say that M is in *reduced row echelon form*.