

**ZMATH 1998a.00423**

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**Subspaces and Echelon forms.**

Carlson, D. et al., Resources for teaching linear algebra. Mathematical Association of America, Washington, DC (ISBN 0-88385-150-4). 201-207 (1997).

In this paper, the author points out first that every subspace of  $R^n$  can be written in both an explicit form (as a span of a set of vectors) and an implicit form (as the solution set of a homogeneous system of linear equations). Each form has its advantages – and thus it would be useful for students to be able to convert either form to the other. The author presents five algorithms, all involving row reduction, which give the instructor and (through the instructor) the student methods to solve a variety of related problems of this sort.

*Classification:* H65