

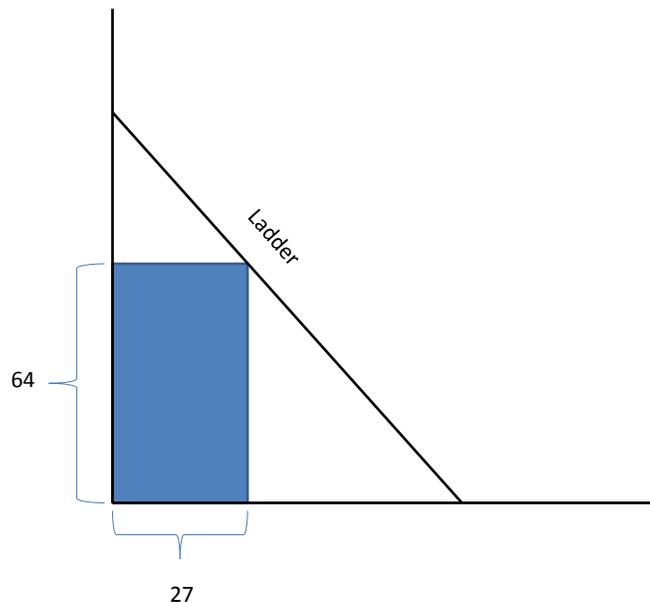
## Problem of the Week #21

Assigned: 10 March 2011, 1300

Due: 24 March 2011, 1300

### The Ladder Problem

A box of height 64 units and width 27 units is placed against a wall. A ladder is placed over the box so that it touches the floor, the corner of the box, and the wall. Given that the positioning of the ladder is unique (i.e., there is only one way to position the ladder so that it touches the floor, the box, and the wall), what is the length of the ladder?



Email solutions to [Christopher.marks@usma.edu](mailto:Christopher.marks@usma.edu) with subject line: POTW.

Solutions can be emailed in the form of: an email (plain text) no attachment, a word document, a mathematica file, an excel workbook, or a scanned adobe file of your work.

If none of these options work for you, you may drop a hardcopy off at my office TH239C, just annotate the time of submission.