

Problem Set 4, due Friday, February 6

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Matlab exercise: A company produces six kinds of widgets. The revenue generated by a sale of each widget is given by the vector c . Each widget is built from thirty three different subwidgets; the company has five thousand of each subwidget on hand. The (i, j) entry of the matrix A is the number of subwidgets of type i that are used in the construction of a widget of type j . The vector c and matrix A can be downloaded from the homework page. They are ascii files; to load them into matlab, go to file \rightarrow import.

How many of each type of widget should the company build, assuming it can sell them all (note you may not get whole number answers; don't worry about this)? If the company has the opportunity to buy a few more subwidgets, which ones should it buy, and how much should it be willing to pay for them?

Note- you don't need to use your own version of simplex. If your matlab has the optimization toolbox, use the command "linprog"; note that the computers in the PIC lab have the toolbox.