

CO-1
ALM-1

A civil engineer involved in construction requires 4800, 5800 and 5700 m³ of sand, fine gravel, and coarse gravel respectively for a building project. There are three pits from which these materials can be obtained. The composition of these pits is:

| | Sand | Fine gravel | Coarse gravel |
|-------|------|-------------|---------------|
| Pit 1 | 55 | 30 | 15 |
| Pit 2 | 20 | 50 | 30 |
| Pit 3 | 25 | 20 | 55 |

- a) Using the data from the table model the problem by a system of simultaneous linear equations.
- b) How many cubic meters must be hauled from each pit in order to meet the engineer's need, using Gauss elimination method.