

**CO-1**  
**ALM-1**

A civil engineer involved in construction requires 4800, 5800 and 5700 m<sup>3</sup> 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.