

# SOFT BUILD-EDIFICE 2011

## ROUND 1-ELIMINATIONS

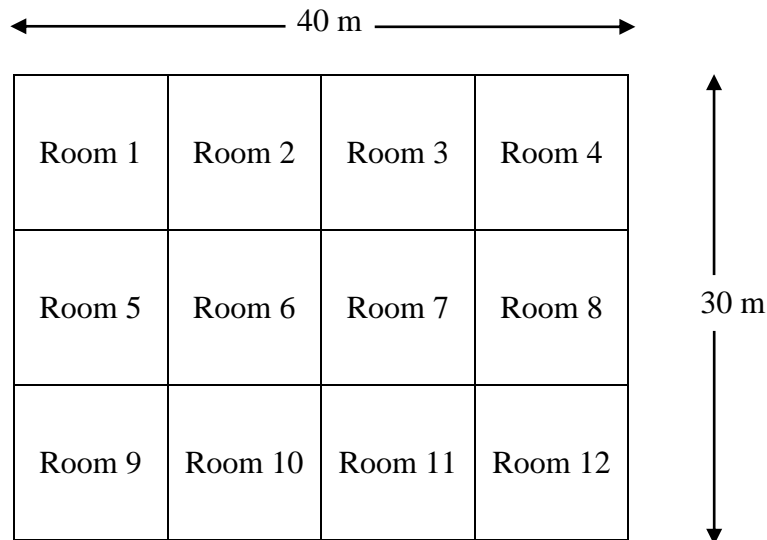
### PROBLEM STATEMENT FOR CODE DEVELOPMENT

---

Develop a Program Code to generate the result for the underlying problem statement.  
(The coding must be done in C, C++, Java or Matlab only)

#### Problem Statement:

Find the number of bricks required to build up the masonry walls (neglecting wall openings and assuming Walls to be built up of bricks alone without considering the mortar used), in a grid patterned single storey building structure, with dimensions defined as below:



N = no. of rows (example, n = 3 as in the above figure)  
M = no. of columns (example, m = 4 as in the above figure)

#### DATA TO BE ENTERED BY USER DURING EXECUTION OF THE CODE

1. Dimensions of Brick used.
2. Length and Breadth of the building (40 m and 30 m in the above example).
3. N,M i.e. No. of rows and columns in the building structure (N x M gives the number of rooms in the building)
4. Height of the walls.
5. Thickness of walls. This must be in terms of brick width like 1 x width, 1.5 x width etc. Brick width is lesser than the length and larger or at max equal to the height of the brick.

#### ASSUMPTIONS AND PRECAUTIONS

1. The program should give the no of bricks used as the output.
2. Building walls are made by bricks only i.e. no mortar or any material is to be considered in the masonry.
3. No wall openings i.e. doors, windows, vents etc.
4. Precautions must be taken while counting the bricks at wall intersections.

#### YOUR TASK

Develop a program which takes the data mentioned above and prints the number of bricks required.  
Mail your solutions (code and .exe file) at [softbuild2k11@gmail.com](mailto:softbuild2k11@gmail.com) by **20 SEPTEMBER 2011**