

```

#
# comment lines begin with # in column 1
# all text beyond a # within a line is treated as comment
#
# number of nodes, elements # do not include dummy nodes/links
# number of elements not actually used.
#
27, 8
#
# Lx, Ly, Lz # dimensions of the rectangle prism RVE mesh
#
1.0, 2.0, 4.0
#
# Vertex nodes of mesh: A, B, C, D, E, F, G. See notes for ordering
#
1, 3, 21, 19, 7, 9, 27, 25
#
# 3x3 **usually** a symmetric** strain tensor. See notes for non-symmetric
# Symmetric version conforms to usual tensor definition of strains.
#
0.1 0.2 0.5 # eps_xx, eps_xy, eps_xz
0.2 0.0 0.3 # eps_xy, eps_yy, eps_yz
0.5 0.3 0.0 # eps_xz, eps_yz, eps_zz
#
# nodes with absolute constraints = 0 to suppress rigid-body motions.
# the generated constraints file will include these
#
ABS_CONSTRAINTS 1 # just to prevent rigid body motions.
1 u v w
#
# At most, 6 dummy node pairs are required to impose all
# quantities of the strain tensor as the RVE loading:
# 1 dummy node pair each for eps_11, eps_22, eps_33
# 1 dummy node pair for eps_12, eps_21
# 1 dummy node pair for eps_13, eps_31
# 1 dummy node pair for eps_23, eps_32
#
# Only those actually used need to be specified in the input here.
#
# The script outputs additional absolute constraints to impose non-zero
# strain tensor values on the 2nd dummy node attached to link2 elements
#
DUMMY_EPS_MAP 7 # 7 lines < generated constraints>
1 1 28 29 u # eps_11 -> sets node 29 u = eps_11 value
#
1 2 30 31 u # eps_12 -> sets node 31 u = eps_12 value
2 1 30 31 v # eps_21 -> sets node 31 v = eps_21 value
#
1 3 32 33 u # eps_13 -> sets node 33 u = eps_13 value
3 1 32 33 w # eps_31 -> sets node 33 w = eps_31 value
#
2 3 34 35 v # eps_23 -> sets node 35 v = eps_23 value
3 2 34 35 w # eps_32 -> sets node 35 w = eps_32 value
#
# nodal x, y, z coordinates. must be sequential. script reads only
# number of nodes listed above - set that number to *not* include
# dummy nodes.
#
1 0.0 0.0 0.0
2 0.5 0.0 0.0
...
27 1.0 2.0 4.0

```