Q2:  
What to mesh? Generate a new mesh for only the 4 points. The mesh should contain all the points. Take a slightly larger region including the 4 points

Have different variants of mesh. More refinement.

Calculate eigenvalue for each mesh. Take a set (length 5) of smallest eigenvalue for each mesh. Check for convergence of the eigenvalues

Calculate eigen inv(M)\*K

Now you have chosen the mesh that you want.

Now for this mesh. Sample x eigen values (take somewhere in middle). We will get x (usually 5) pressure vectors

For the x (usually 5) pressure vectors, check the P value at the 4 points.

Do the rms of the x pressure vectors at the points that we need

Forget the boundary term, it will be zero everywhere because of neuman  
there will be a 0.1 at the source node

How are u doing inverse?

Hsb, usha, kv

Implicit – 0.1, explicit 1e-4