

Solutions:

K_1165_1647 soln: -1.39341e+08

K_1664_1339 soln: -4.84341e+07

Q_5244 soln: 0

Q_5259 soln: 19.6078

warning: matrix singular to machine precision, rcond = 2.74219e-18

warning: called from

K_global at line 126 column 7

d_3616(nodal displacement) soln: -1.33336e-07

d_5476(nodal displacement) soln: -2.59778e-07

max_stress =

5.3478e+07 0

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From the Homework Handout we should expect stress to be $6.25 \cdot 10^7 \text{ N/m}^2$. We can see that the current solution is **off by about 14%**, this is a much larger difference than the expected error of less than 0.6%. There must be an error in the setup that is creating this error.