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Decomposition and elements: 1d

MATLAB code 1 npoint =

5; % #points in decomposition 2 nelement

= npoint - 1; % #elements/intervals 3 4 x

= linspace(0,1,npoint); % create vertices 5

6 e2p(1:nelement,1) = 1:npoint

-1; % create e2p, part 1 7 e2p(1:nelement

,2) = 2:npoint; % create e2p, part 2 8 9

plot(x,0\*x,'b-

o','MarkerFaceColor','r') % draw decomposition

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describe the input data.

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.....145 11.7 Element energy .....146

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the case with finite element codes).

Sometimes for loops are unavoidable, but it is surprising how few times this is the case. It is suggested that after developing a Matlab program, one go back and see how/if they can eliminate any of the for loops. With practice this will become second nature. 3 Sections of a Typical Finite Element Program

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