
```

function Out = forsub_MRHS(A,b)

%This function preforms forward substitution
%Created by Patrick Good based on Dr. Zettergren's simple elimination
%example cdoe

%size b
[~,c] = size(b);

%split b
B = cell(1,c); %reallocating for efficiency
for n=1:c

    B{n} = b(:,n);

end
Out = cell(1,c);
for n=1:c

%Illustrate vanilla forward elimination
nref=length(B{n}); %system size for reference problem

%note that the elimination procedure coded below modifies the matrix B
Awork=cat(2,A,B{n}); %This is our working version of the
    matrix used to perform elimination (i.e. it will be modified)
for ir1=2:nref %loop over
    rows from 2 to n performing elimination, this index marks what row
    we are starting the elimination from (i.e. using) for this particular
    column
        for ir2=ir1:nref %this index
            marks the present position where elimination is being performed -
            i.e. where we are applying the elementary row operations
                fact=Awork(ir2,ir1-1);
                %multiplier of the variable we are attempting to eliminate, its ir-1
                column of this row
                Awork(ir2,:)=Awork(ir2,:)-fact/
Awork(ir1-1,ir1-1).*Awork(ir1-1,:);
                %disp('Awork = ')
                %disp(Awork)%subtract off previous row modified by a factor
                that eliminates the ir-1 column term in this row (so it has only
                super-diagonal elements), this is a little bit wasteful as it uses
                entire row...
            end %for
        end %for

    Out{n} = Awork;

end

end

Not enough input arguments.

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Error in forsub_MRHS (line 8)
[~,c] = size(b);
```

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