```
function [ C ] = C_exact( x )
%C_EXACT Summary of this function goes here
%   Detailed explanation goes here

if x > pi/3
    C = 0.01*sin(3*x);
else
    C = sin(3*x);
end

end
```

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```
function [ F ] = F_vector( X )
%F_VECTOR Summary of this function goes here
%   Detailed explanation goes here
m = length(X);
F = zeros(m,1);

for i = 1:m-1
    F(i,1) = TwoPointRule(@f_x, i, i, X, X(i), X(i+1));
end

F(m,1) = TwoPointRule(@f_x, i, i, X, X(m-1), X(m));

end
```

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```
function [ K ] = TriDiag( X )
%TRIDIAG Summary of this function goes here
%   Detailed explanation goes here
steps = length(X);
K = zeros(steps);

for i = 1:steps-1
    K(i,i+1) = TwoPointRule(@Coeff, i, i+1, X, X(i), X(i+1));
    K(i, i) = TwoPointRule(@Coeff, i, i, X, X(i), X(i+1));
    K(i+1,i) = TwoPointRule(@Coeff, i+1, i, X, X(i), X(i+1));
end

K(steps,steps) = K(steps-1, steps-1);
```

```
end
```

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