
```
function x = jacobi(A, b, x0, TOL, n)
% Use the Jacobi method to solve a linear system
%
% Inputs:
%   A - coefficient matrix
%   b - constant terms
%   x0 - x(0)
%   TOL - tolerance
%   n - number of unknowns
%
% Outputs:
%   x - solution of the linear system

% represents x(k - 1)
XO = x0;

% represents x(k)
x = x0;

% repeat until the the stopping criteria is met
while(1)

    for i = 1:n

        % calculate the sum of aij * XOj from j = 1 to n
        % such that i does not equal j
        sum = 0;
        for j=1:n
            if j ~= i
                sum = sum + A(i, j) * XO(j);
            end
        end

        % calculate x(i)
        x(i) = (1/A(i, i)) * (b(i) - sum);

    end

    % return if the error is within the tolerance
    if norm(x - XO, inf) < TOL
        return;
    end

    % update XO
    XO = x;

end

end

Not enough input arguments.
```

Error in jacobi (line 15)
XO = x0;

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