```
function result = cubicSpline(X,Y,x)

n = length(X);
A = zeros(4*n-4);
b = zeros(4*n-4,1);

for i = 1:2:2*n-3
    for j = 2*i-1:2*i+2
      k = mod(j,4);
      k = mod((4-k),4);
      A(i,j) = X(i)^k;
      b(i) = Y(i);
      b(i+1)=Y(i+1);
      A(i+1,j) =X(i+1)^k;
    end
end

t =2;
u = 2;
for i = 2*n-1:3*n-4
    A(i,t-1) = 3*(X(u)^2);
    A(i,t) = 2*(X(u));
    A(i,t+1) = 1;
    A(i,t+2) = 0;
    A(i,t+3) = -3*(X(u)^2);
    A(i,t+4) = -2*(X(u));
    A(i,t+5) = -1;
    A(i,t+6) = 0;
    t = t+8;
    u = u+1;
end

t = 2;
u = 2;
for i = 3*n-3:4*n-6
   A(i,t-1) = 6*(X(u));
    A(i,t) = 2;
    A(i,t+1) = 0;
    A(i,t+2) = 0;
    A(i,t+3) = -6*(X(u));
    A(i,t+4) = -2;
    A(i,t+5) = 0;
    A(i,t+6) = 0;
    t = t+8;
    u = u+1;
end

A(4*n-5,1) = 1;
A(4*n-4,2) = 1;
coeff = GEM(A,b);
for i = 1:n-1
    if x>=X(i) & x<X(i+1)
```

```
        C = [coeff(4*i-3) coeff(4*i-2) coeff(4*i-1) coeff(4*i)];
    end
end
val = 0;
val = C(1)*(x^3)+C(2)*(x^2)+C(3)*(x)+ C(4);
result = val;
end
```

```
Not enough input arguments.

Error in cubicSpline (line 3)
n = length(X);
```

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