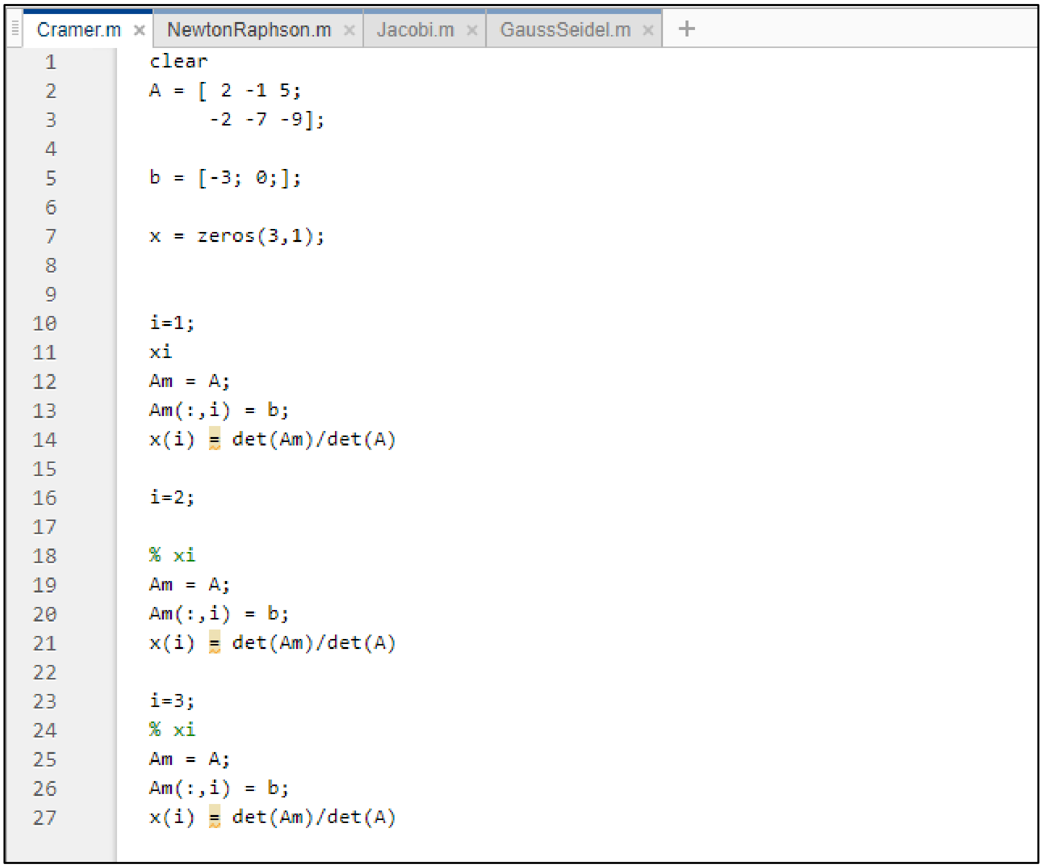
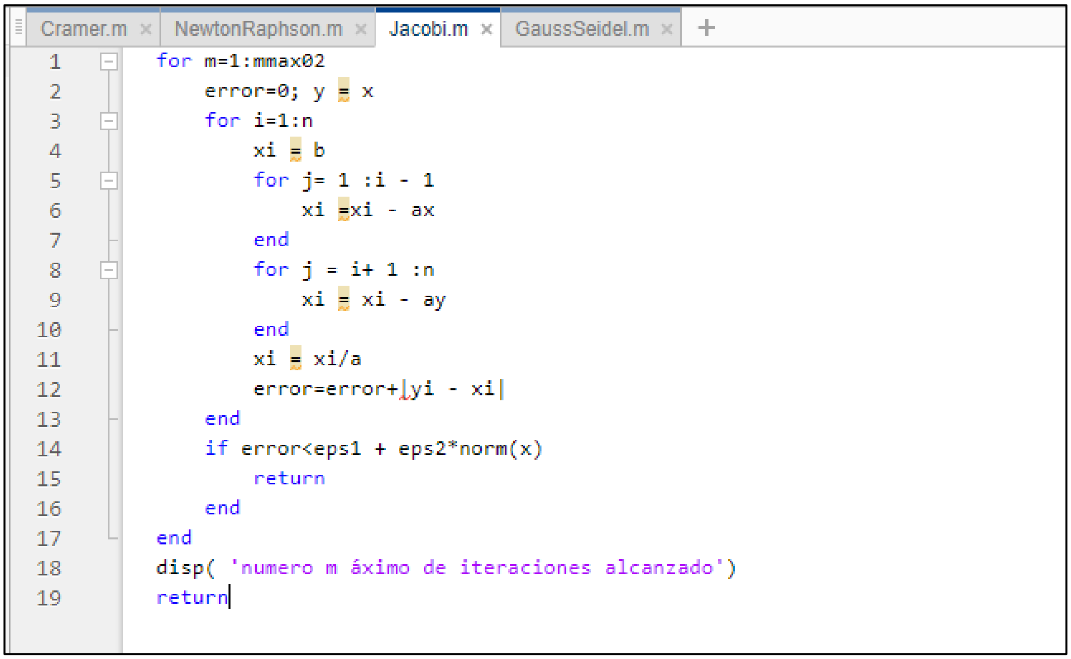
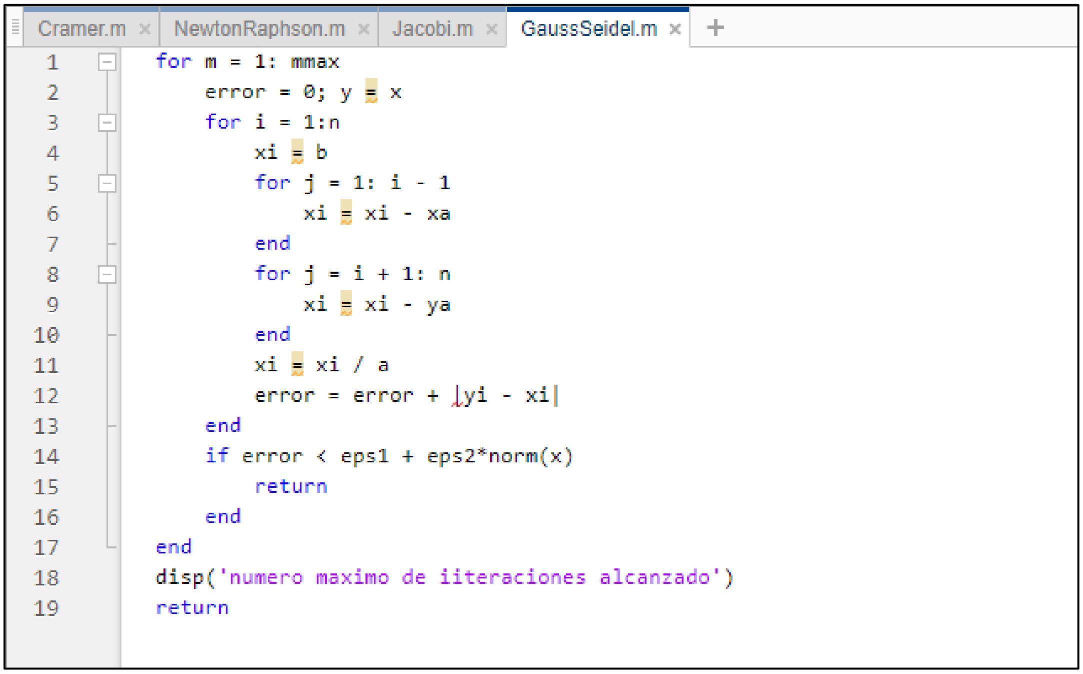
Ecuaciones Lineales



```
clear
A = [ 2 -1 5;
     -2 -7 -9];

b = [-3; 0;];

x = zeros(3,1);


i=1;
xi
Am = A;
Am(:,i) = b;
x(i) = det(Am)/det(A)

i=2;

% xi
Am = A;
Am(:,i) = b;
x(i) = det(Am)/det(A)

i=3;
% xi
Am = A;
Am(:,i) = b;
x(i) = det(Am)/det(A)
```

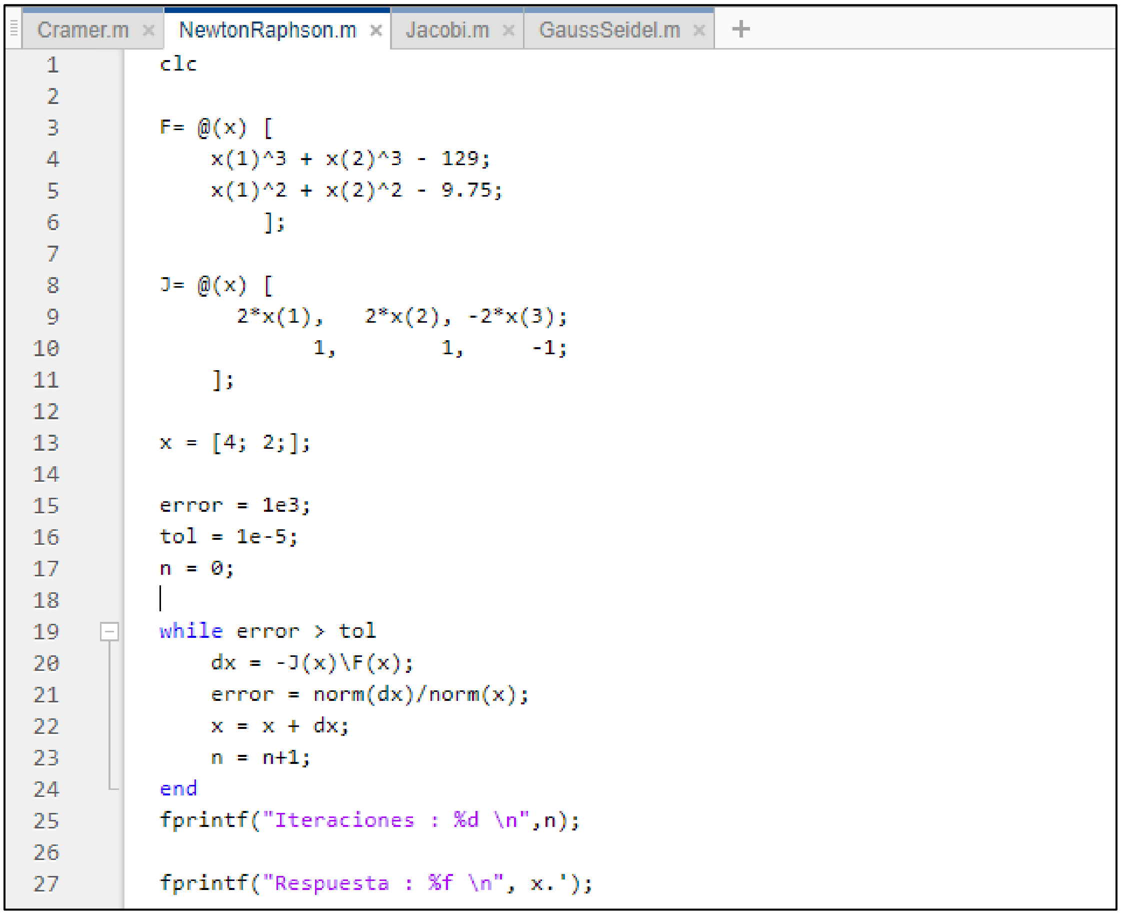


```
for m=1:mmax02
    error=0; y = x
    for i=1:n
        xi = b
        for j= 1 :i - 1
            xi =xi - ax
        end
        for j = i+ 1 :n
            xi = xi - ay
        end
        xi = xi/a
        error=error+|yi - xi|
    end
    if error<eps1 + eps2*norm(x)
        return
    end
end
disp( 'numero m áximo de iteraciones alcanzado')
return
```



```
for m = 1: mmax
    error = 0; y = x
    for i = 1:n
        xi = b
        for j = 1: i - 1
            xi = xi - xa
        end
        for j = i + 1: n
            xi = xi - ya
        end
        xi = xi / a
        error = error + |yi - xi|
    end
    if error < eps1 + eps2*norm(x)
        return
    end
end
disp('numero maximo de iiteraciones alcanzado')
return
```

Ecuaciones No Lineales



```
clc

F= @(x) [
    x(1)^3 + x(2)^3 - 129;
    x(1)^2 + x(2)^2 - 9.75;
        ];

J= @(x) [
      2*x(1),   2*x(2), -2*x(3);
            1,        1,      -1;
    ];

x = [4; 2;];

error = 1e3;
tol = 1e-5;
n = 0;

while error > tol
    dx = -J(x)\F(x);
    error = norm(dx)/norm(x);
    x = x + dx;
    n = n+1;
end
fprintf("Iteraciones : %d \n",n);

fprintf("Respuesta : %f \n", x.');
```