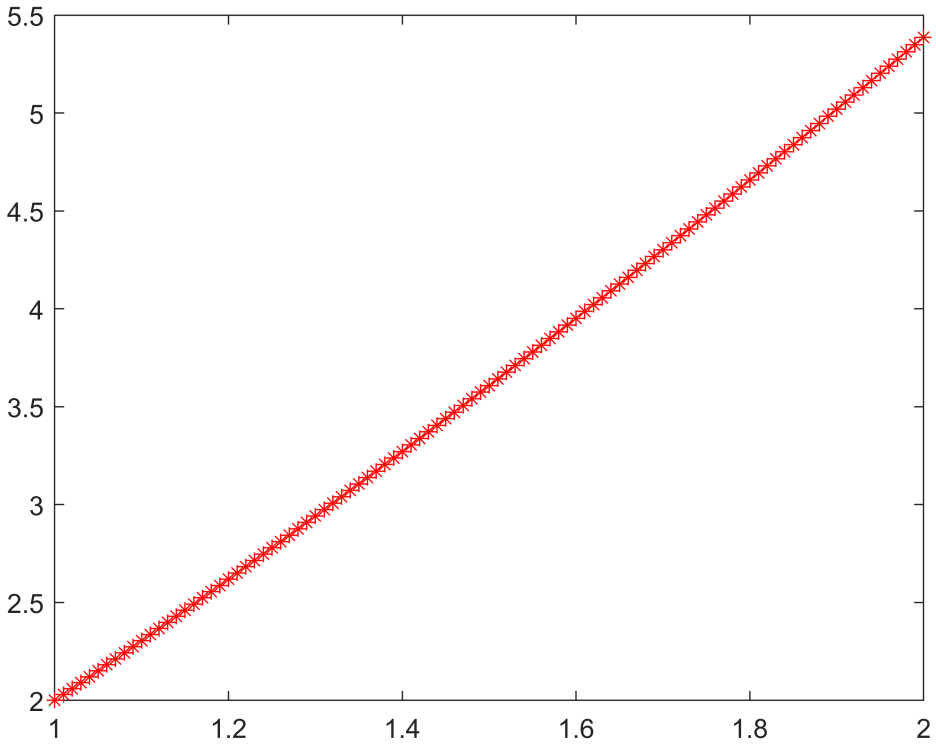
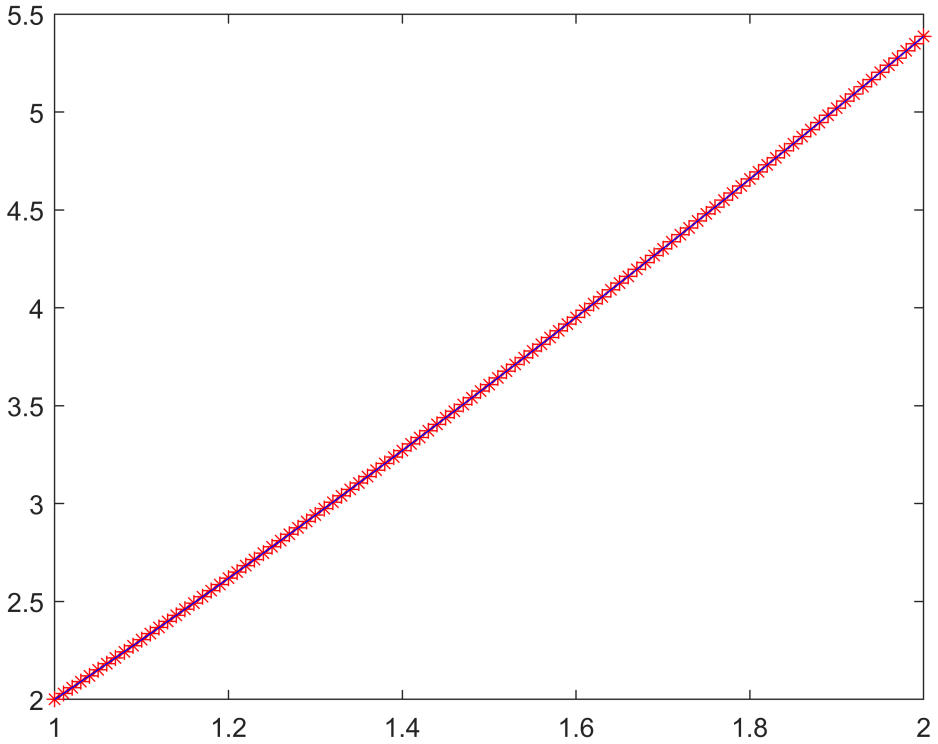
# Solucion de un EDO usando RK3

```
h = 0.01; % Tamaño de paso
t=1:h:2;
Y = t.*log(t)+2*t;
plot(t,Y,'*r')
```




```
y0 = 2; % Condicion Inicial;
F = @(t,y) 1+y/t;
y(1) = y0;  % Vector Solucion Numerica;
n = length(t);
for i=1:n-1
    k1 = F(t(i),y(i));
    k2 = F(t(i)+0.5*h,y(i)+0.5*k1*h);
    k3 = F(t(i)+h,y(i)-k1*h+2*k2*h);
    y(i+1) = y(i)+(h/6)*(k1+4*k2+k3);
end
hold on
plot(t,y,'-b')
```


5.5
5
4.5
4
3.5
3
2.5
2
1
1.2
1.4
1.6
1.8
2