

```
f=@(x) 3*x^2; %Write your f(x,y) function, where dy/dx=f(x,y),  
x(x0)=y0.
```

```
x=0;  
y=0;  
h=0.15;  
n=0;  
term=0;
```

```
itr=20  
fprintf('\n');  
%This is for labels  
q='itrn';  
w='x value';  
b='current y';  
t='solved y';  
o='slope value';  
k='';  
a=[q,k,w,k,b,k,t,k,o];  
disp(a);
```

```
%This is the 2nd order Ralston's loop program
```

```
for i=1:itr+1  
    l=x;  
    p=y;  
    x=x+(0.75*h);  
    k1=f(l,p);  
    y=y+(0.75*k1*h);  
    k2=f(x,y);  
    fr=(k1/3)+(2*k2/3);  
    y=p+(h*fr);  
    x=l+h;  
    fprintf('%2.0f %13.4f %13.4f %13.4f %17.4f\n',n,l,p,y,fr);  
    n=n+1;  
end
```