```
// 2x-7y-10z=-17
// 5x+y+3z=14
// x+10y+9z=7

x=[0;0;0];
for i=1:10
   x(1,1)=(-17+7*x(2,1)+10*x(3,1))/2;
   x(2,1)=(14-5*x(1,1)-3*x(3,1))/1;
   x(3,1)=(7-x(1,1)-10*x(2,1))/9;
end
disp(x(1,1),x(2,1),x(3,1),'values are');
```

```
// 3x-2y=5
// -x+2y-z=0
//-2y+z=-1
x=[0;0;0];
for i=1:10
    x(1,1)=(5+2*x(2,1))/3;
    x(2,1)=(0+x(1,1)+x(3,1))/2;
    x(3,1)=(-1+2*x(2,1))/1;
end
disp(x(1,1),x(2,1),x(3,1),'values are');
```

```
// 28x+4y-z=32
// 2x+17y+4z=35
// x+3y+10z=24
x=[0;0;0];
for i=1:10
    x(1,1)=(32-4*x(2,1)+x(3,1))/28;
    x(2,1)=(35-2*x(1,1)-4*x(3,1))/17;
    x(3,1)=(24-x(1,1)-3*x(2,1))/10;
end
disp(x(1,1),x(2,1),x(3,1),'values are');
```

```
// 4x+2 limit 1 and 2 h=0.1
funcprot(0)
function ans=trap(a, b, n, f)
   h=(b-a)/n;
   sum=0
   for i=1:n-1
      x=a+i*h;
      sum=sum+2*f(x);
   end
   ans=(h/2)*(f(a)+f(b)+sum);
endfunction

for output type in console
deff('y=f(x)','y=4*x+2')
trap(1,2,10,f)

// use same for x3 just change function in deff
And values in trap




funcprot(0)
```

```
// simpsons 1/3rd
function ans=simp(a, b, n, f)
  h=(b-a)/n
  sum=0
  for i=1:n-1
    x=a+i*h;
    if modulo(i,2)==0
      sum=sum+2*f(x)
    else
      sum=sum+4*f(x)
  end
end
ans=(h/3)*(f(a)+f(b)+sum)
endfunction
```

similarly for output like above do process

```
// simpsons 3h/8 rule
funcprot(0)
function ans=simp2(a, b, n, f)
  h=(b-a)/n
  sum=0
  for i=1:n-1
    if modulo(i,3)==0
      sum=sum+2*f(x)
    else
      sum=sum+3*f(x)
  end
end
ans=(3*h/8)*(f(a)+f(b)+sum)
endfunction
```

similarly output get by doing steps like first

```
// secantmethod
function [x]=daku(f, x0, x1, n)
  y0=f(x0);
  y1=f(x1);
  for i=1:n
    x=x1-(x1-x0)*y1/(y1-y0)
    y=f(x)
    x0=x1
    y0=y1
    x1=x
    y1=y
  end
  return
endfunction
```

// for output do step as first deff or then call
function like daku(f,0,1,8)