

```

double c[4],e[4]={0.5,0.5,1.0,1.0};
d=new double[n];
u=new double[n];
v=new double[n];
g=new double[n];
for (i=0; i<=2; i++) c[i]=a[i];
c[3]=0.5;
x=t; p=1.0+eps; hh=h; m=1;
for (j=0; j<=n-1; j++) u[j]=y[j];
while (p>=eps)
{
    for (j=0; j<=n-1; j++)
    {
        v[j]=y[j]; y[j]=u[j]; g[j]=q[j];
    }
    dt=h/m; t=x;
    for (k=0; k<=m-1; k++)
    {
        (* f)(t,y,n,d);
        for (ii=0; ii<=3; ii++)
        {
            for (j=0; j<=n-1; j++) d[j]=d[j]*hh;
            for (j=0; j<=n-1; j++)
            {
                r=(a[ii]*(d[j]-b[ii]*g[j])+y[j])-y[j];
                y[j]=y[j]+r;
                s=g[j]+3.0*r;
                g[j]=s-c[ii]*d[j];
            }
            t0=t+e[ii]*hh;
            (* f)(t0,y,n,d);
        }
        t=t+dt;
    }
    p=0.0;
    for (j=0; j<=n-1; j++)
    {
        qq=fabs(y[j]-v[j]);
        if (qq>p) p=qq;
    }
    hh=hh/2.0; m=m+m;
}
for (j=0; j<=n-1; j++) q[j]=g[j];
delete[] g; delete[] d; delete[] u; delete[] v;
return;
}

```