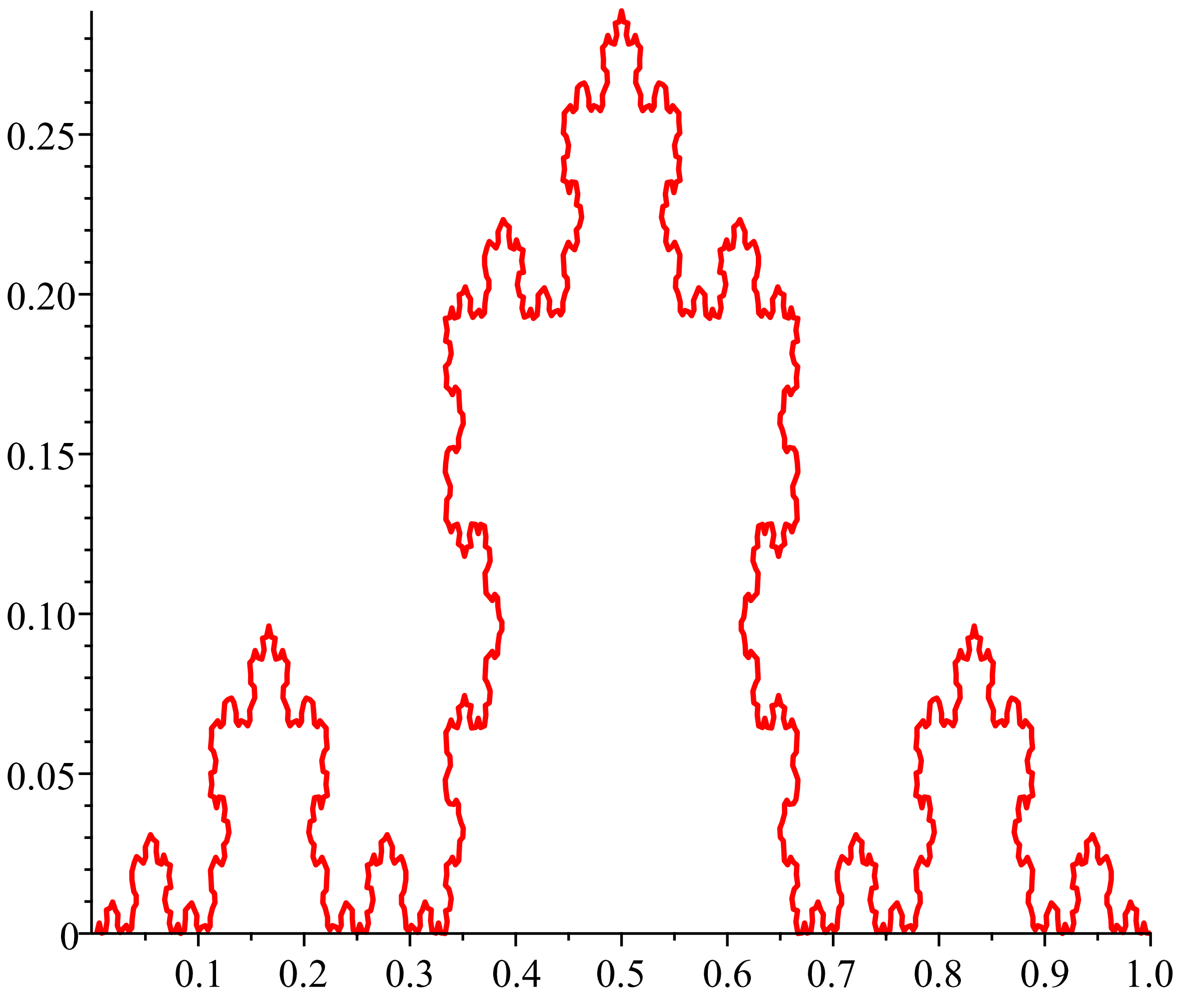
```
> restart:


  with(plots):

  #       !
   ,
  #          ,          0 . 1   0 . 0 5
  0.01  0.005
  ChZnPoZap:=3:
  ShagX:=evalf[1](1/10^ChZnPoZap);


  #
  Theta[0]:=0:
  Theta[1]:=Pi/3:
  Theta[2]:=-Pi/3:
  Theta[3]:=0:

  #
  for i from 0 to 3 do
          s[i]:=1/3:
          T[i]:=matrix(2,2,[s[i]*cos(Theta[i]),-s[i]*sin(Theta[i]
  ),s[i]*sin(Theta[i]),s[i]*cos(Theta[i])]):
  end do:
  #
  v0:=matrix(2,1,[1,0]):


  #
  for j from 0 to 3 do
          A[j]:=evalf(evalm(add(evalm(T[i]&*v0),i=0..j))[1,1]);
          B[j]:=evalf(evalm(add(evalm(T[i]&*v0),i=0..j))[2,1]);
          C[j]:=evalf(s[j]*cos(Theta[j])):
          E[j]:=evalf(s[j]*sin(Theta[j])):
  end do:
  A[-1]:=0:
  B[-1]:=0:
  C[-1]:=0:
  E[-1]:=0:


  #
  KoxaPlolnostu:= proc(t)
          local zz,i,eq1,eq2,j,jj,TT:

           #
   ,        t
          j:=1:
          zz[1]:=0:
          while zz[j]<1+t do
                  eq1[j],eq2[j],TT[j]:=KoxaUrav(zz[j]):
                  zz[j+1]:=zz[j]+t:
                  j:=j+1:
  end do:
```

```
#

subs(x[0.]=0,y[0.]=0,solve({seq(eq1[jj],jj=1..j-1),seq(eq2[jj],
jj=1..j-1)},{seq(x[zz[jj]],jj=1..j-1),seq(y[zz[jj]],jj=1..j-1)}))
;

#    x , y      t
subs(%,[seq([x[zz[jj]],y[zz[jj]],zz[jj]],jj=1..j-1)]);
end proc:

#
  t
KoxaUrav := proc(t)
          option remember;
          local eq1,eq2,i,T,qq,k:
          T:=t:
           #
           k:=4:
          qq:=k*T-trunc(k*T):
          eq1:=x[t]=A[trunc(k*T)-1]+C[trunc(k*T)]*x[qq]-E[trunc
(k*T)]*y[qq]:
          eq2:=y[t]=B[trunc(k*T)-1]+E[trunc(k*T)]*x[qq]+C[trunc
(k*T)]*y[qq]:
          eq1,eq2,T;
end proc:
SaveFractalNotWar:=KoxaPlolnostu(ShagX):
ChisloUzlovFractala:=nops(SaveFractalNotWar)-1:

KoxaFunction:= proc(t)
          option remember;
          local i:

          for i from 0 to ChisloUzlovFractala do
                    #print(i/ChisloUzlovFractala):
                    if t=i/ChisloUzlovFractala then
                              RETURN([SaveFractalNotWar[i+1,1],
SaveFractalNotWar[i+1,2]]);
                    fi:
          od:
          NULL:
end proc:
```

$$ShagX := 0.001 \qquad (1)$$

```
> plot([seq([KoxaFunction(ss/1000)[1],KoxaFunction(ss/1000)[2]], ss
= 1 .. 1000)],thickness=2,color=red);
```


0.25
0.20
0.15
0.10
0.05
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0

```
>
>
>
>
>
>
```