

```

> restart:
N:=100:
for k from 0 to N do
    T[k] := evalf(k/N);
end do:

g:=proc(a,b)
(-1)^a*(a-b)^2:
end proc:

dig := proc (n, k)
    local d, m;
    d := convert(trunc(convert(n,binary)*10^100), base, 10);
    m := nops(d);
    return d[m+1-k];
end proc:

```

$$K_n(t) = c^n \tau_{2n} e^{\sum_{k=1}^n g(a_{2k-1}, a_{2k}) \alpha i} + \sum_{j=1}^n c^{j-1} \left(\frac{a_{2j-1}(a_{2j-1} + a_{2j})}{2} + (-1)^{a_{2j-1}} a_{2j} c + a_{2j-1}(1 - a_{2j}) c \sin \alpha \cdot i \right) e^{\sum_{k=1}^{j-1} g(a_{2k-1}, a_{2k}) \alpha i}.$$

```

Koch:=proc(n,t)
    local c, alpha;
    alpha:=Pi/2:
    c:=1/(2+2*cos(alpha)):
    add(c^(j-1)*(dig(t,2*j-1)*(dig(t,2*j-1)+dig(t,2*j))/2+
(-1)^dig(t,2*j-1)*dig(t,2*j)*c+dig(t,2*j-1)*(1-dig(t,2*j))*c*sin
(alpha)*I)*exp(I*alpha*add(g(dig(t,2*k-1),dig(t,2*k)),k=1..j-1)),
j=1..n):
end proc:

```

```

> convert(0.6, binary);
evalf(%, 10);
convert(0.100110011000000000, decimal, binary);
trunc(10^3)

```

0.1001100110

0.1001100110

0.5996093750

1000

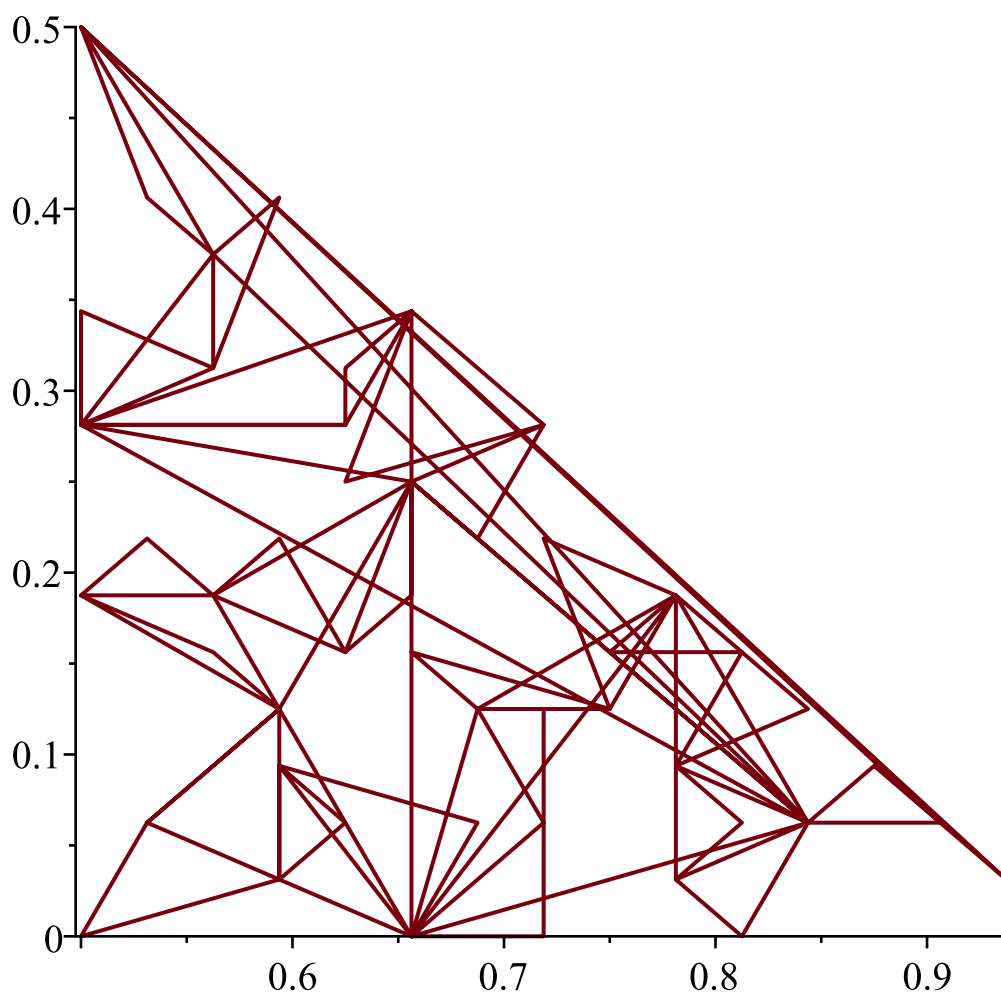
(1)

```

> plot([evalc(Re(Koch(4,t))), evalc(Im(Koch(4,t))), t=0..1])
Error, (in dig) invalid input: `convert/binary` expects its 1st
argument, n, to be of type {float, integer}, but received t
> CyfraChisla:=proc(nomer,chislo)
    convert(.1, binary)
end proc:

```

```
> plot([seq([evalc(Re(Koch(10,T[k]))),evalc(Im(Koch(10,T[k])))] ,k=
1..N)])
```



```
> evalc(Re(Koch(4,0.1)))
```

$$1 - \frac{1}{2 + \sqrt{2}} + \frac{1 - \frac{1}{2 + \sqrt{2}}}{(2 + \sqrt{2})^2} \quad (2)$$

```
> nthdigit(0.1, 5)
```

$$1 \quad (3)$$