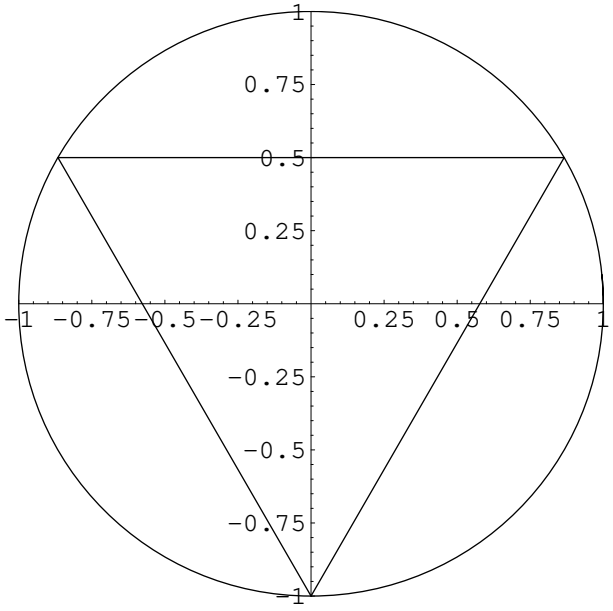
Courbe de Koch

```
s = Sqrt@D 2.
```

```
0.866025
```

Triangle

```
tr = 8 0, - 1<, 8- s,  .5 <, 8 s, 0.5<, 8 0, - 1<<;
Show@ListPlot@tr Plot Joined fi True, PlotRange fi 8 8- 1, 1<,8- 1, 1<<,
    AspectRatio fi 1, DisplayFunction fi IdentityD,
  Show@Graphics@Circle@ 0 0<,1DD,DisplayFunction fi IdentityD,DisplayFunction fi $DisplayFunctionD
```




```
Graphics
```

définition des fonction qui construisent les triangles

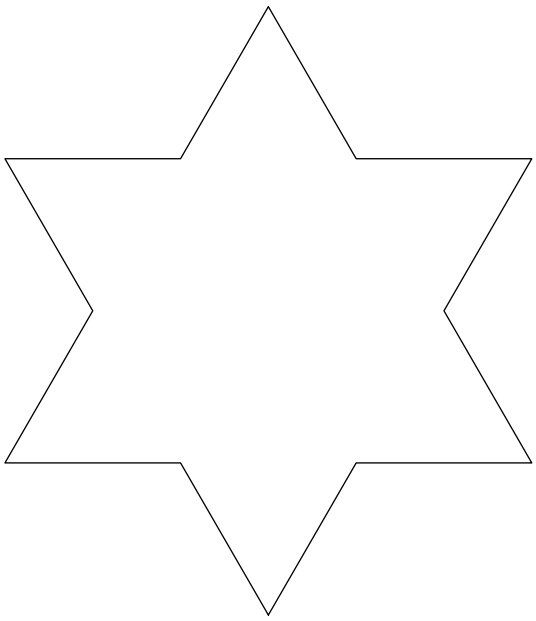
```
ite@objD := Block@8 lii, objin, objf<,
      objf = 8<;
      objin = obj ;
      Do@
        lii = Take@
            objin, 8 i, i + 1<D;
        objf = Join@objfff@lii D,
        8 i, 1, Length@obj D - 1<D;
      Return@objD;D;

ff@zD := Block@8 v, n<,
      v = H @ D 2 z@ D L;
      n = RotateLeft@H @ D 2 z@ D L * 8- 1, 1<;

       Return@
        Join@8 z@ D-8 z@ 1D-v  3<,8 z@ D + v  2 + s  3  n<, 8 z@ D + 2 v  3 <,8 z@ D < DD;
```

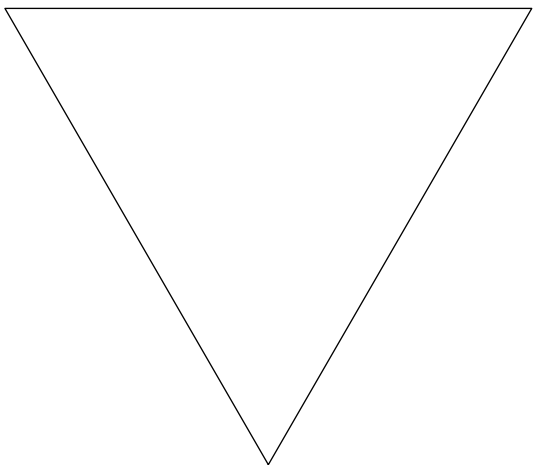
A la main on itère

```
ListPlot@tr,
    PlotJoined fi True, Axes fi None, PlotRange fi 88- 1, 1<,8- 1, 1<<, AspectRatio fi 1D;
tr = ite@trD;
```



5 Itérations automatiques

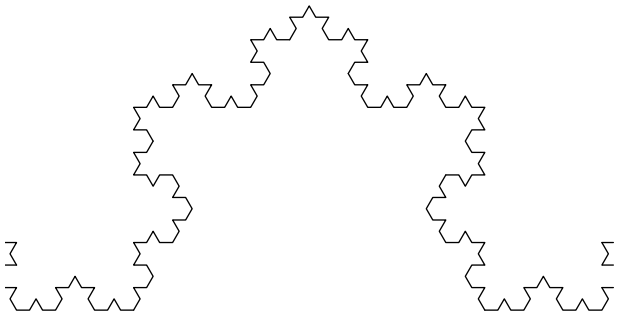
```
tr = 880, - 1<, 8- s, .5 <, 8s, 0.5<, 80, - 1<<;
Do@ListPlot@tr,
    PlotJoined fi True, Axes fi None, PlotRange fi 88- 1, 1<,8- 1, 1<<, AspectRatio fi 1D;
  tr = ite@tr, D
  8i, 1, 5<D
```



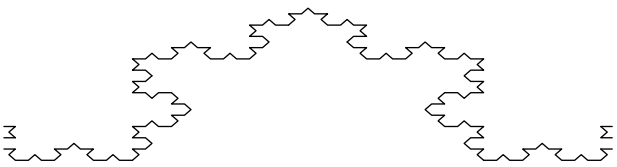
```
ltr = 88- s, .5<, 8s, .5 <<;

ltr = ite@ltrD;
```

```
ListPlot@ltr,
    PlotJoined fi True, Axes fi None, PlotRange fi 88- 0.5, 0.5<, 80, 1<<, AspectRatio fi 1 D;
```



```
Do@ListPlot@ltr,
    PlotJoined fi True, Axes fi None, PlotRange fi 88- 0.5 , 0.5  i<,8i 1  i, 1<<,AspectRatio fi 1 D,
  8i, 1, 5<D
```



```
ltr = 880, -1<, 8-s, .5<<;
Do@ListPlot@ltr,
    PlotJoined fi True, Axes fi None, PlotRange fi 88-1, 1<,8-1, 1<<, AspectRatio fi 1D;

  8s, 1, 5<D
```

```
ListPlot::lpn : 880, -1<, 8-0.866025, 0.5<, Null< is not a list of numbers or pairs of numbers.

ListPlot::lpn : 880, -1<, 8-0.288675, -0.5<,   7  , Null< is not a list of numbers or pairs of numbers.
```

```
Hold@Abort@D, Abort@DD
```