

【K05】 绘制谢尔宾斯基地毯

```
import turtle
turtle.tracer(20)
t = turtle.Turtle()
length = 600

def drawRectangle(startrow,startline,length,color):
    t.penup()
    t.goto(startrow,startline)
    t.pendown()
    t.color(color)
    t.fillcolor()
    t.begin_fill()
    for n in range(4):
        t.forward(length)
        t.right(90)
    t.end_fill()

def doThetask(n):#n 是阶数
    if n :
        for j in range(-300+int(length/(3**n)),300,int(length/(3**(n-1)))):
            for k in range(300-int(length/(3**n)),-300,-int(length/(3**(n-1)))):
                drawRectangle(j,k,int(length/(3**n)),'white')
    else:
        return
    return doThetask(n-1)

drawRectangle(-300,300,600,'red')#初始化一个大的正方形
doThetask(5)#得到指定阶数的谢尔宾斯基魔毯
turtle.done()
```

