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from tkinter import *
from math import *
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    # August 2017
master = Tk()
w = Canvas(master, width=1680, height=1050, bg='gray')
w.pack()
winkel = 90
x_old = 740
y_old = 750

def move(entfernung):
    global x_old, y_old
    radiant = -1*3.141/180*winkel
    x_new = x_old + entfernung * cos(radiant)
    y_new = y_old + entfernung * sin(radiant)
    w.create_line(x_old,y_old,x_new,y_new, fill="black", width=1)
    x_old = x_new
    y_old = y_new

def turn(Drehwinkel):
    global winkel
    winkel = winkel + Drehwinkel
    if winkel >= 360:
        winkel = winkel-360
    if winkel <= -360:
        winkel = winkel+360
laenge = 1
a = "v"
stack = [ ]
stufe=6

for i in range (stufe):
    a=a.replace("v","v[lv]v[r]v")

for i in range(len(a)):
    t = a[i]
    if t == "v":
        move(laenge)
    elif t == "l":
        turn(-25)
    elif t == "r":
        turn(25)
    elif t == "[":
        stack.append(x_old)
        stack.append(y_old)
        stack.append(winkel)
    elif t == "]":
        winkel = stack.pop()

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y_old = stack.pop()
x_old = stack.pop()
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