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RecursiveShapes Users Manual

What is RecursiveShapes?

RecursiveShape is an application that produces SVG images of recursively created polygons of any given number of sides. The software creates an impression of each shape falling into to the previous one while rotating and creating a spiral. This is achieved by rotating and scaling each line of the polygon as it goes as the process goes along.

What SVG images can you make with *RecursiveShape*?

The application can create images of polygons of size 3 to 9. Each shape is scaled down and rotated about an angle to create the impression of a spiral.

What application(s) are supported by *RecursiveShape*?

This program supports just one application called Recursive_shape.sh.

How to run *RecursiveShape*?

To run this program, first download the *RecursiveShape* folder from the connex site to your desktop. The next step is to open up your terminal (for mac/linux) or cmd prompt (for windows). Next, change the directory on the terminal like so:

cd Desktop
cd RecursiveShape

You are required to pass in three parameters after typing "bash Recursive_shape.sh".

They include:

 The number of sides (the shape you want, e.g 3 for a triangle).

The colour you want (Most colours are available)

The number of recursions you want (determines how thick your image will appear, the higher the number, the thicker).

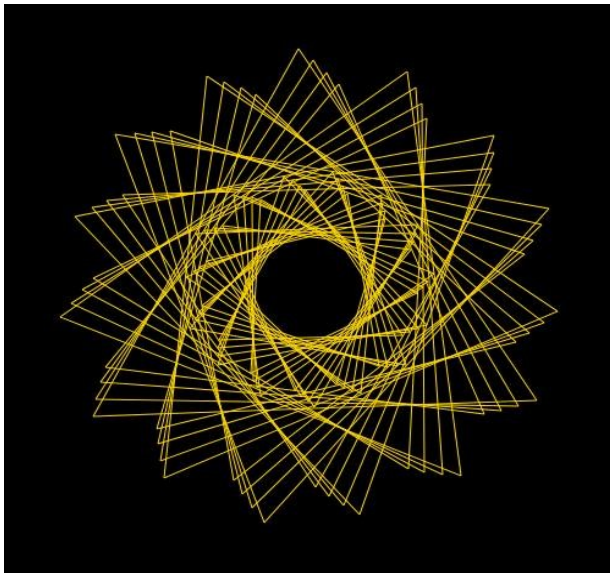Ensure to hit the spacebar after typing in each spacebar

Next run the bash file on the terminal like so:
```
       bash Recursive_Shape.sh number of _sides _colour
_number of recursions
```

Here are some examples of SVG images made with the *RecursiveShape* application and how to create them on the terminal:
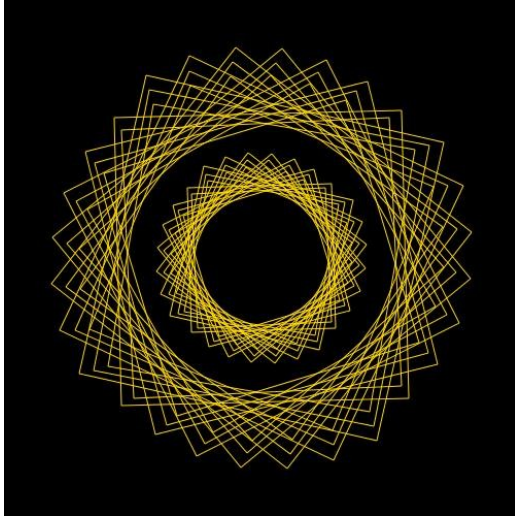
1, Spiral of Pentagons

Terminal instruction:


```
bash Recursive_shape.sh 5 Gold 20
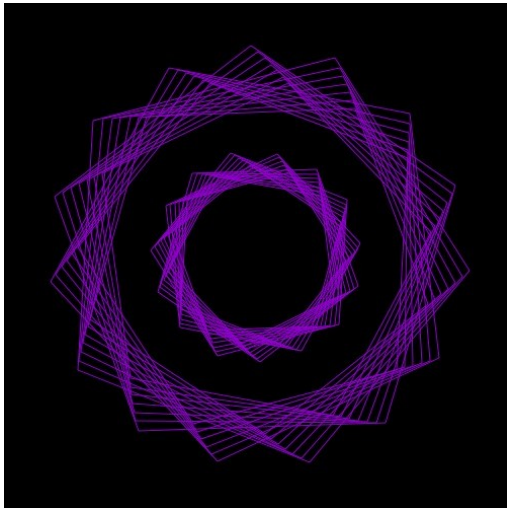```

## 2, Spiral of Square



Terminal instruction:

```
bash Recursive_shape.sh 4 Gold 20
```

3, Spiral of Pentagon

Terminal instruction:

```
bash Recursive_shape.sh 5 DarkViolet 20
```

The image will be formed in the RecursiveShape folder as "Shapes_done.svg"
Right click on the image and open with any browser. Have fun with various
values and colours!