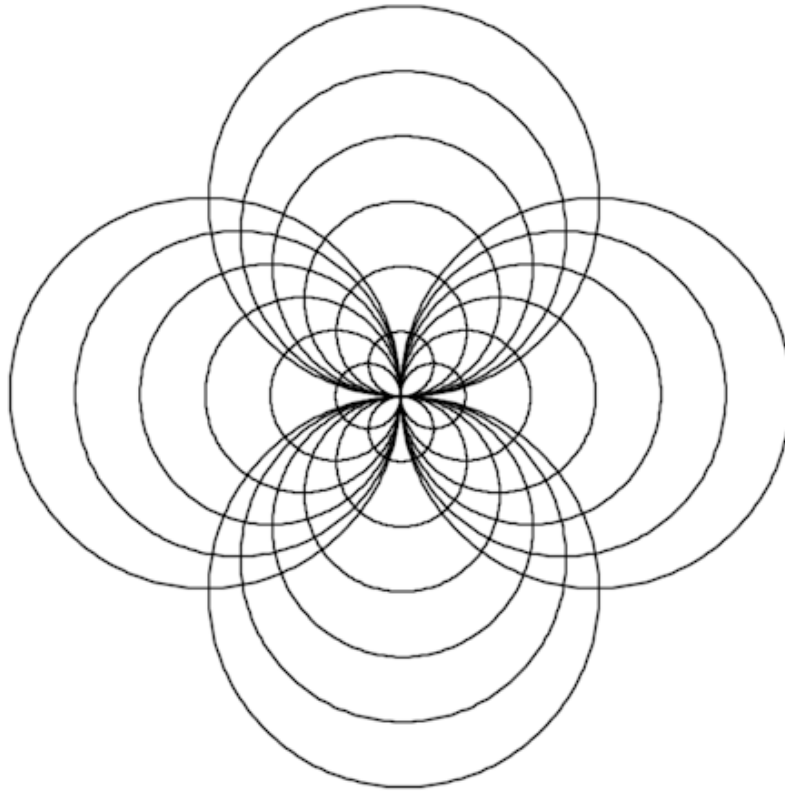


“Turtle Tuesday” Logo Challenges

October 3, 2023

Challenge No. 53

Can you draw these circles in Logo?



Our solution:

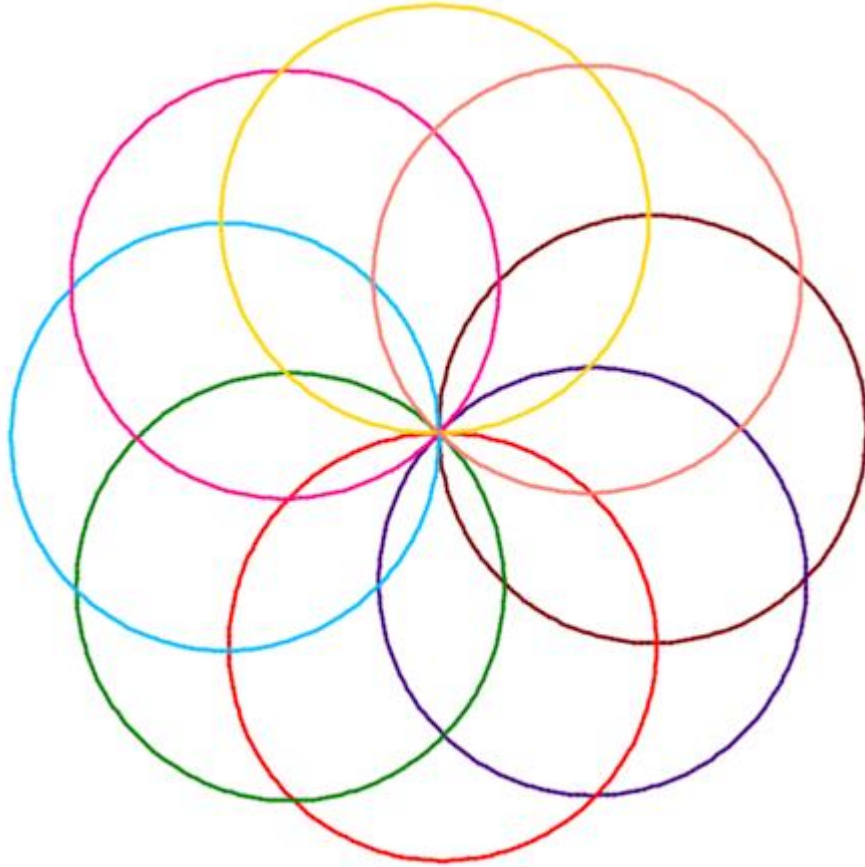
```
TO CIRCLES
REPEAT 180 [FD 1 RT 2]
REPEAT 180 [FD 1 LT 2]
REPEAT 180 [FD 2 RT 2]
REPEAT 180 [FD 2 LT 2]
REPEAT 180 [FD 3 RT 2]
REPEAT 180 [FD 3 LT 2]
REPEAT 180 [FD 4 RT 2]
REPEAT 180 [FD 4 LT 2]
REPEAT 180 [FD 5 RT 2]
REPEAT 180 [FD 5 LT 2]
REPEAT 180 [FD 6 RT 2]
REPEAT 180 [FD 6 LT 2]
END

DRAW
CIRCLES
RT 90
CIRCLES
```

October 10, 2023

Challenge No. 54

Can you draw these colorful circles in Logo?



Our solution:

```
TO COLORCIRCLES
REPEAT 8 [SETPC RANDOM 137 REPEAT 180 [FD 5.5 RT 2] RT 45]
END
```

```
COLORCIRCLES
```

This alternate procedure picks from specific color values to avoid similar colors.

You can see all the color values here: resources.terrapinlogo.com/weblogo/manual/colors

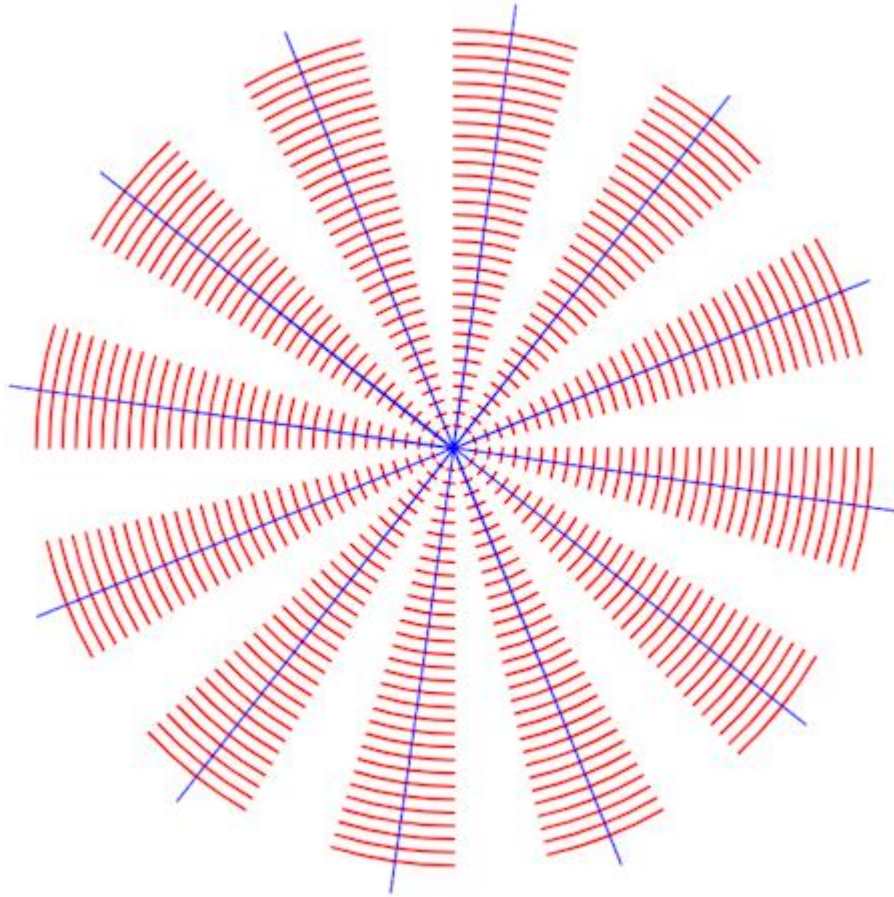
```
TO COLORCIRCLES :NUM
IF :NUM > 8 THEN STOP
SETPC ITEM :NUM [4 65 12 2 51 50 59 118]
REPEAT 180 [FD 5 RT 2] RT 45
COLORCIRCLES :NUM + 1
END
```

```
COLORCIRCLES 1
```

October 17, 2023

Challenge No. 55

Can you draw this design in Logo using the ARC command (and others)?



Our solution:

```
TO ARCDESIGN
DRAW SETW 2 SETPC "RED
ARCS 17 17
SPOKES
END
```

```
TO SPOKES
SETW 1 SETPC "BLUE LT 22
REPEAT 12 [FD 340 BK 340 RT 360/12]
END
```

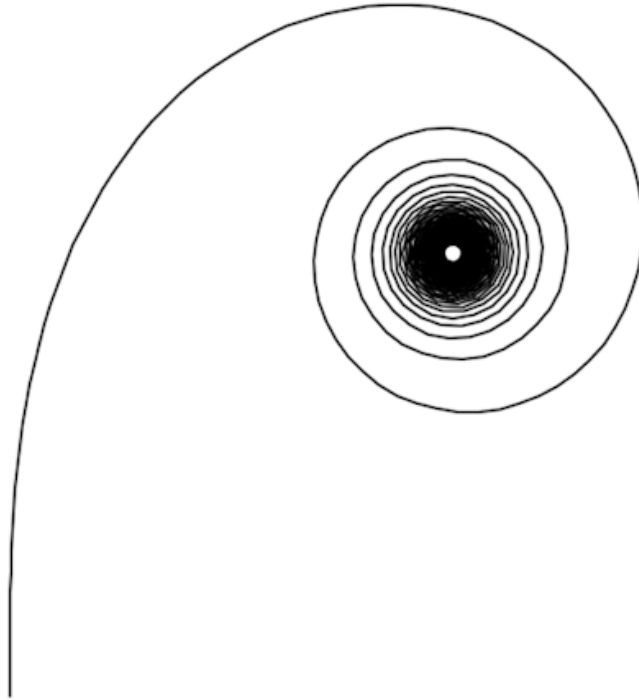
```
TO ARCS :DEGREES :NUM
IF :NUM > 320 THEN STOP
REPEAT 12 [ARC :DEGREES :NUM RT 30]
ARCS :DEGREES :NUM + 10
END
```

```
ARCDESIGN
```

October 24, 2023

Challenge No. 56

Can you draw this circular spiral in Logo?



Our solution:

```
TO CIRCLESPIRAL :NUM  
IF :NUM > 100 THEN STOP  
FD 17 RT :NUM  
CIRCLESPIRAL :NUM + .1  
END
```

```
DRAW PU BK 300 PD
```

```
CIRCLESPIRAL .1
```

October 31, 2023

Challenge No. 57

Can you draw a jack-o'-lantern in Logo?



Our solution:

Tip: To easily move the turtle to a specific location on the screen, type `PU SETPOS MOUSE PR POS`, then move your mouse pointer to where you want the turtle to go, and press Enter. Use the resulting pair of coordinates with `SETPOS` and add it to your program. That is how the mouth was drawn in the program below (the part with all the `SETPOS` commands).

This program isn't elegant, but it serves its purpose!

```
TO HALLOWEEN
  PU FD 150 PD
  RT 20 SETPC "BROWN
  REPEAT 2 [FD 90 RT 90 FD 20 RT 90]
  PU RT 20 FD 10 PD (FILL 0)
  PU HOME PD
  SETPC "DARKORANGE
  (STAMPOVAL 150 150 "TRUE)
  PU SETPOS [-90 25] PD
  SETPC "WHITE RT 90
  REPEAT 3 [FD 75 LT 120]
  PU LT 30 FD 20 PD FILL
```

```
PU HOME PD
PU SETPOS [25 25] PD
RT 90 REPEAT 3 [FD 75 LT 120]
PU LT 30 FD 20 PD FILL
PU HOME PD
PU SETPOS [0 -20] PD
RT 90 PU BK 10 PD REPEAT 3 [FD 30 LT 120]
PU LT 30 FD 20 PD FILL
SETW 4
PU SETPOS [-105 -25] PD
SETPOS [-70 -30]
SETPOS [-60 -40]
SETPOS [-40 -50]
SETPOS [-30 -60]
SETPOS [0 -70]
SETPOS [20 -60]
SETPOS [30 -50]
SETPOS [40 -40]
SETPOS [60 -30]
SETPOS [90 -25]
SETPOS [66 -50]
SETPOS [50 -80]
SETPOS [10 -100]
SETPOS [-50 -90]
SETPOS [-70 -65]
SETPOS [-105 -25]
PU SETPOS [-40 -75] PD FILL
END
```