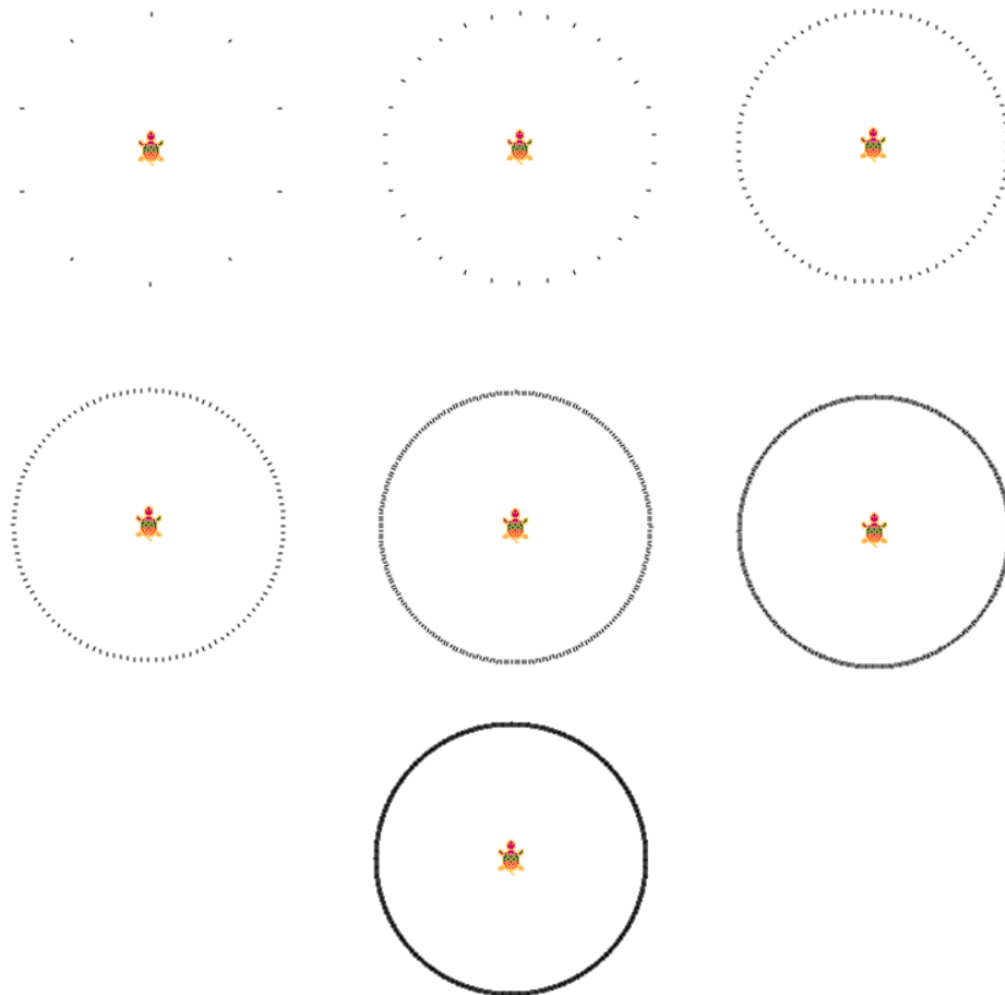


“Turtle Tuesday” Logo Challenges

March 7, 2023

Challenge No. 23

Here's another way to look at a circle: a set of points the same distance from a central spot.
Can you make a circle this way?



Our solutions:

```
REPEAT 10 [PU FD 98 PD FD 2 PU BK 100 RT 36]
REPEAT 30 [PU FD 98 PD FD 2 PU BK 100 RT 12]
REPEAT 90 [PU FD 98 PD FD 2 PU BK 100 RT 4]
REPEAT 120 [PU FD 98 PD FD 2 PU BK 100 RT 3]
REPEAT 240 [PU FD 98 PD FD 2 PU BK 100 RT 1.5]
REPEAT 360 [PU FD 98 PD FD 2 PU BK 100 RT 1]
REPEAT 720 [PU FD 98 PD FD 2 PU BK 100 RT .5]
```

March 14, 2023

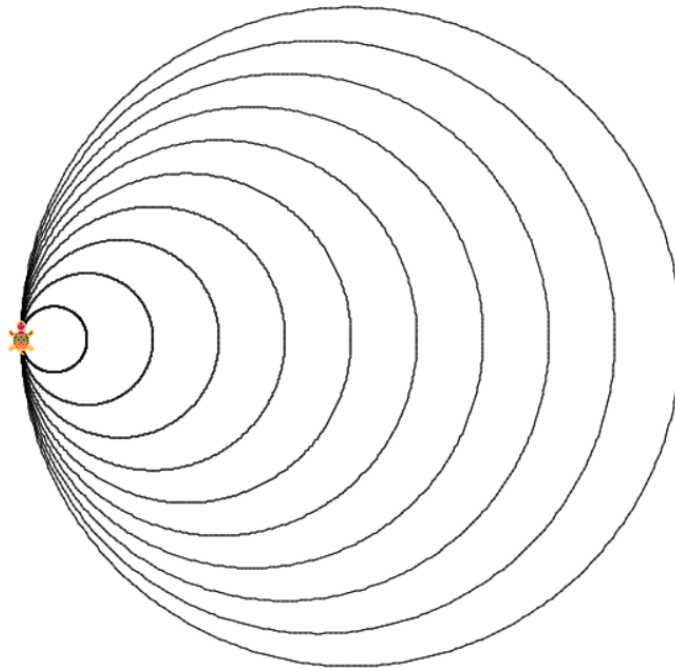
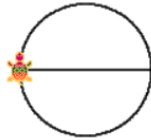
Challenge No. 24

Happy Pi Day!

Use Logo's PI command to draw circles. Pi times the diameter is a circle's circumference.

Type PRINT PI to see its value.

Use MAKE "PRECISION 15 to see more digits after the decimal point.



Our solutions (don't enter the text in italics):

```
DRAW RT 90 FD 150 BK 150 LT 90  
PR 150 * PI (this = 471.24)  
REPEAT 360 [FD 471.24/360 RT 1]
```

```
TO PICIRCLE :DIAMETER  
REPEAT 360 [FD (PI * :DIAMETER)/360 RT 1]  
END
```

```
DRAW RT 90 FD 200 BK 200 LT 90  
PR 200 * PI (this = 628.32)  
REPEAT 360 [FD 628.32/360 RT 1]
```

```
PICIRCLE 50  
PICIRCLE 100  
PICIRCLE 150  
PICIRCLE 200  
through  
PICIRCLE 500
```

March 21, 2023

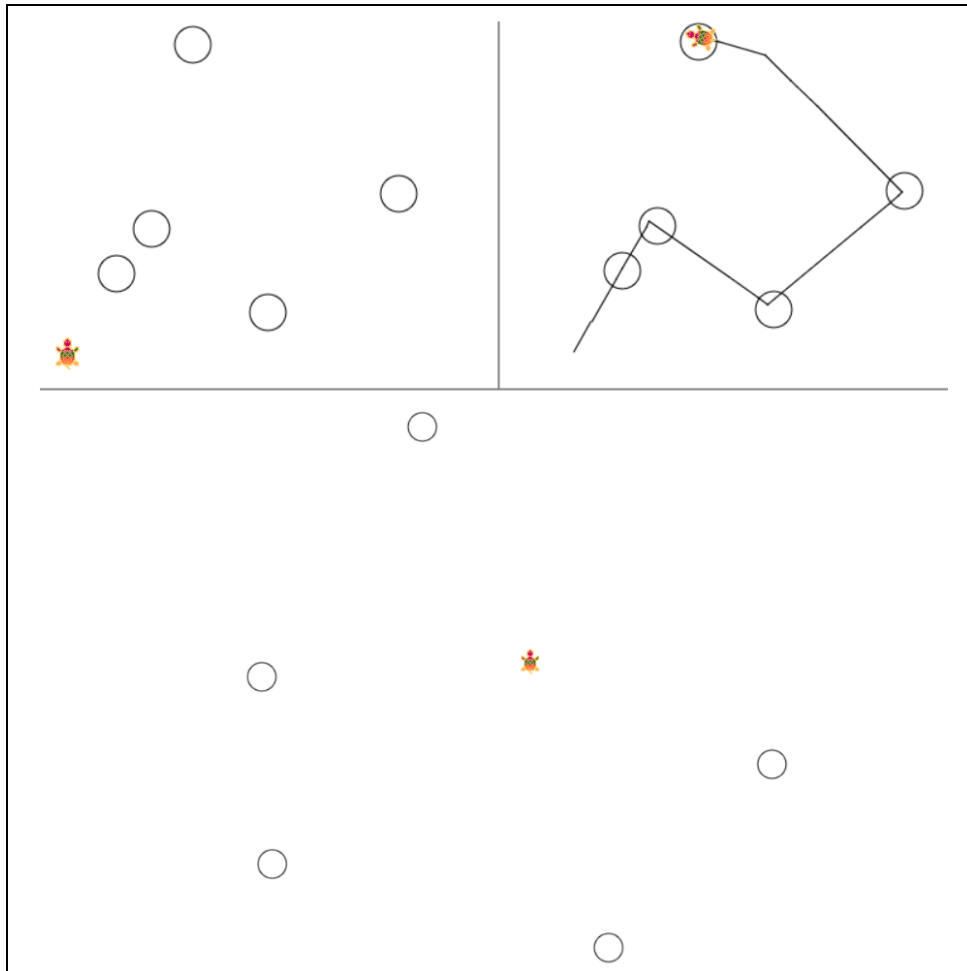
Challenge No. 25

Connect the Dots!

Use RANDOM, SETX, SETY, and STAMPOVAL to place dots on the screen.

Then give the turtle commands to connect them.

For a challenge, put dots in all four quadrants of the screen.



Our solutions:

In upper right quadrant:

```
TO RANDOMDOT  
  PU  
  SETX RANDOM 300  
  SETY RANDOM 300  
  PD  
  STAMPOVAL 15 15  
  PU HOME PD  
END
```

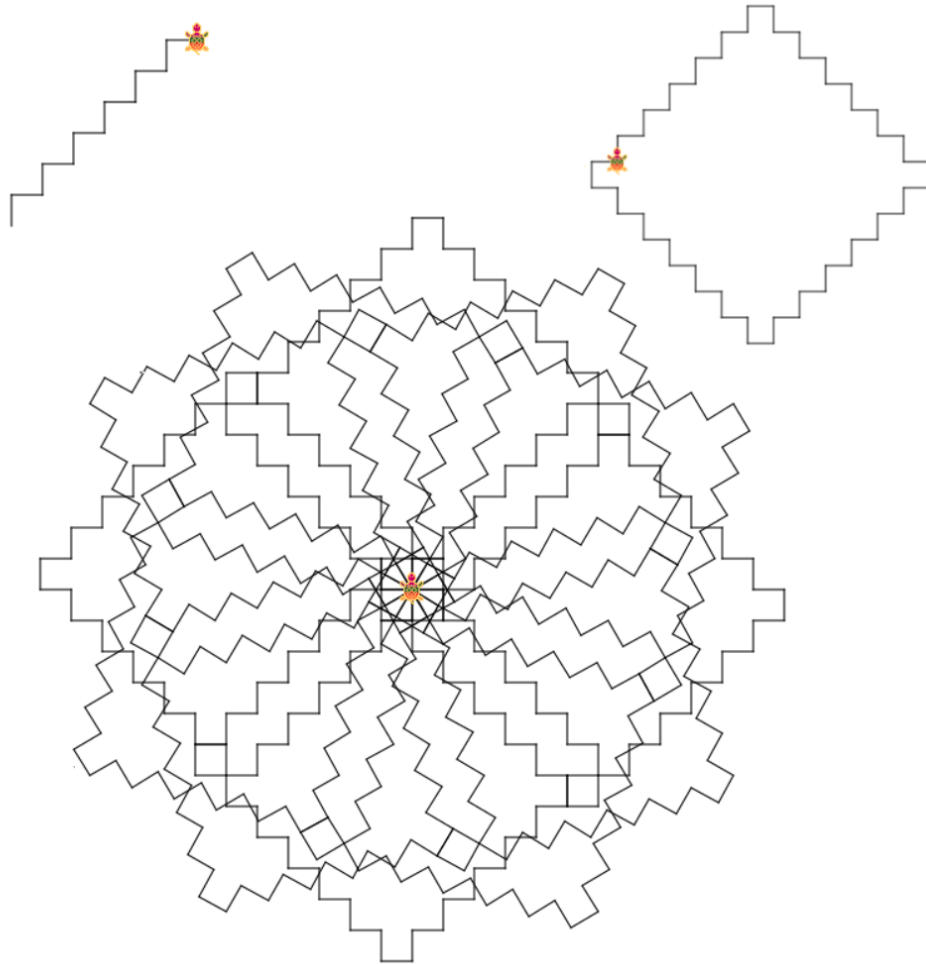
In all four quadrants of the screen:

```
TO RANDOMDOT4  
  PU SETX (300 - (RANDOM 600))  
  SETY (300 - (RANDOM 600))  
  PD  
  STAMPOVAL 15 15  
  PU HOME PD  
END
```

March 28, 2023

Challenge No. 26

Stepping Up!



Our solutions:

```
REPEAT 6 [FD 25 RT 90 FD 25 LT 90]
```

```
REPEAT 4 [REPEAT 6 [FD 25 RT 90 FD 25 LT 90] BK 25 RT 90]
```

```
REPEAT 12 [REPEAT 4 [REPEAT 6 [FD 25 RT 90 FD 25 LT 90] BK 25 RT 90] RT 30]
```

Remember to use `DRAW` to erase the screen between shapes.