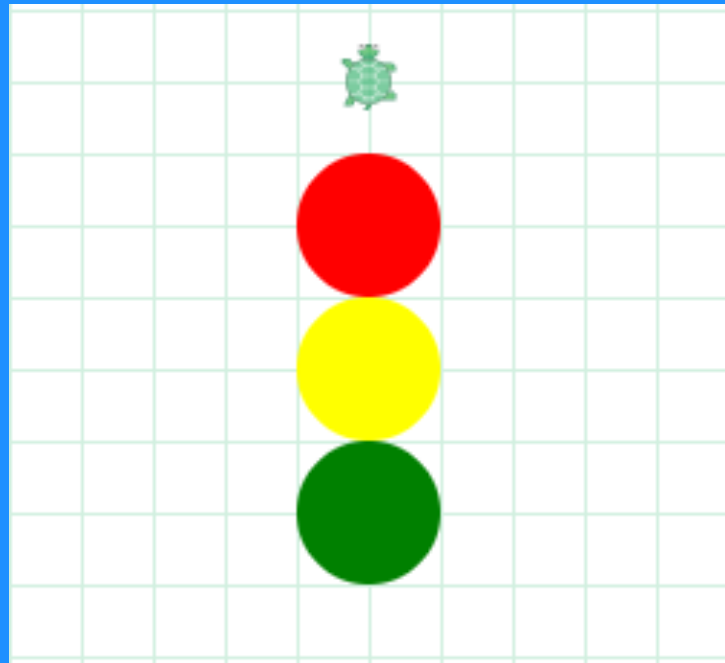


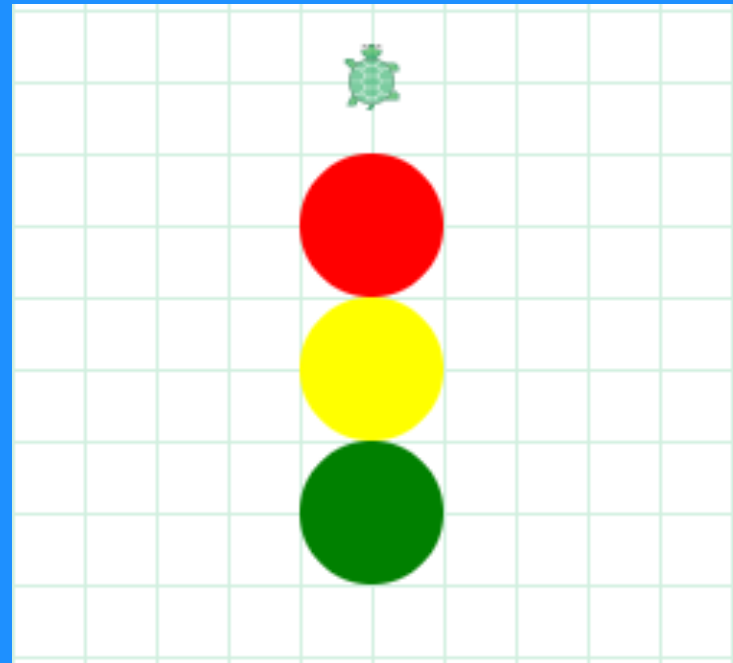
READY, SET, GO!



PROGRAMMER



READY, SET, GO!



PROGRAMMER





Try it Yourself!

Try typing the following code into your canvas to make a traffic light.

```
1 for x in [green, , ]
2 dot x, 50
3 fd 50
```

a type of
loop

variable that
you can define

parameters that
you set for the loop

make sure you
indent what
you want to be
repeating

What other color parameters will
you need to use for a traffic light?

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STOP FOR TURTLES



PROGRAMMER



STOP FOR TURTLES



PROGRAMMER





Try it Yourself!

Let's draw a blue background and the white outline of the stop sign.

```
1 dot blue, 10000
2 pen white
3 - for [1..]
4   fd 50
5   rt 45
6   fill red
7   right turn 45 degrees
```

change the pen color

How many sides does a stop sign have?

right turn 45 degrees

Then let's write STOP on our sign.

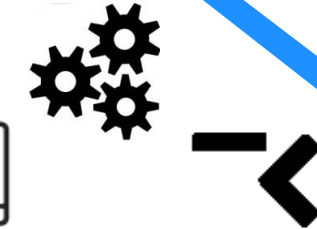
```
8 jump to 60, 25
9 - label 'STOP',
10 color: white
11 font: '35px Arial'
```

will make the turtle jump to position (60, 25)

indent to type the color

creates a label

indent to type font size, style



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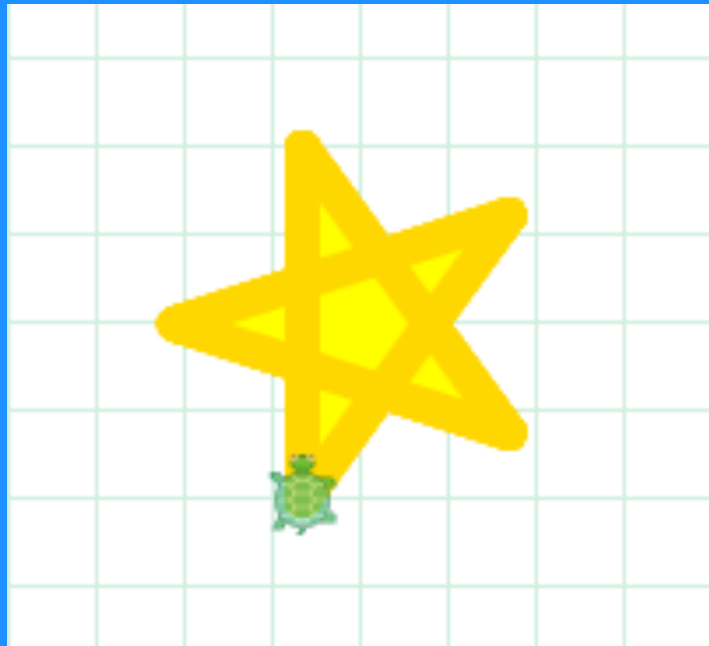
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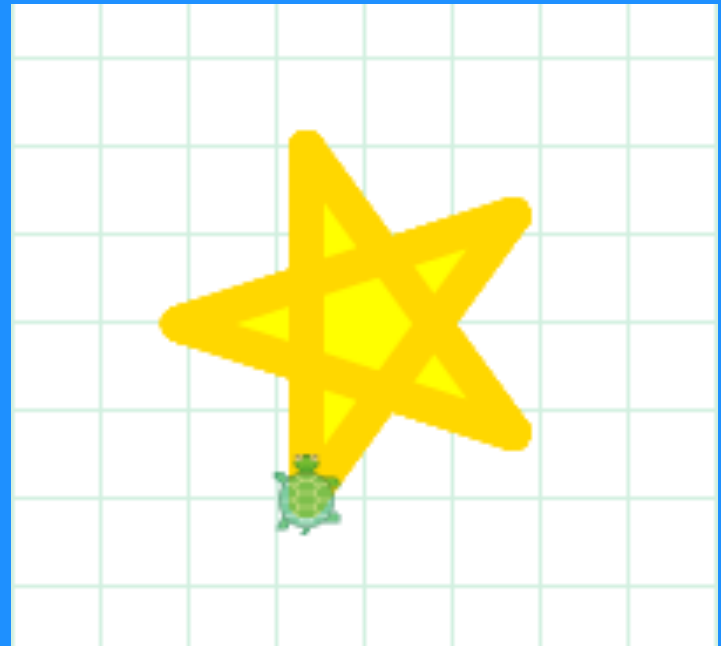
TWINKLE TWINKLE



PROGRAMMER



TWINKLE TWINKLE



PROGRAMMER





Try it Yourself!

Draw a five-pointed star using the **for** loop.

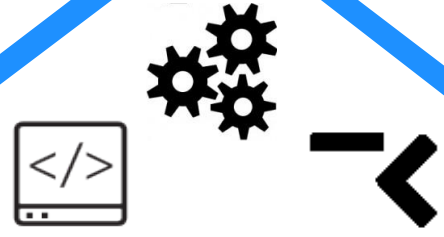
color and size of the pen

```
1 pen gold, 10
2 for [1..5] to repeat 5 times!
3 fd 100
4 rt 
5 fill yellow
```

How far do you need to turn?

Hint: Make sure to indent!

Challenge: Can you make a star with more points? Try out different sized angles, such as 20, 45, or even 144.



Try it Yourself!

Draw a five-pointed star using the **for** loop.

color and size of the pen

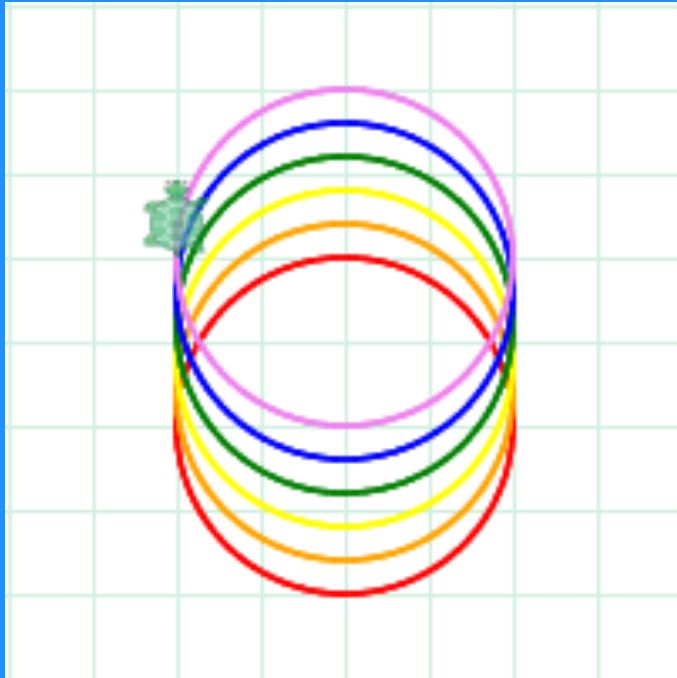
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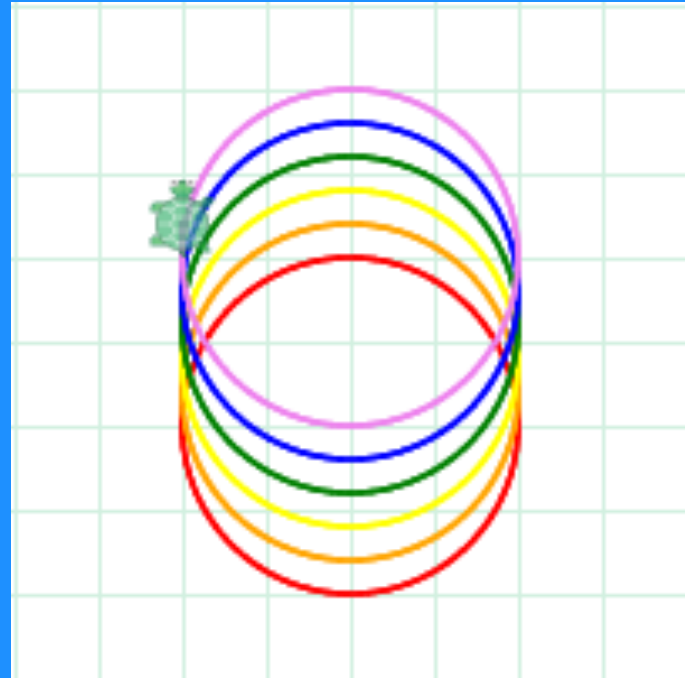
DOUBLE RAINBOW



PROGRAMMER



DOUBLE RAINBOW



PROGRAMMER





Try it Yourself!

Draw a pattern of circles in rainbow colors, using the **for** loop.

c is a variable
you define

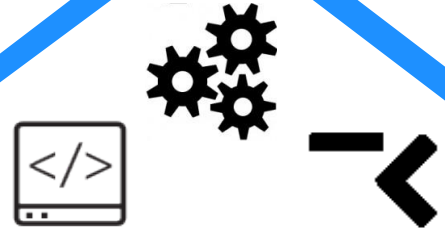
```
1. for c in [
2.   red
3.   orange
4.   ]
5.   pen color will
6.   now be
7.   whatever
8.   color you
9.   define as c
10.  pen c
11.  rt [ ] , 50
12.  fd 10
13.  circle?
```

What color
parameters
do you need
to draw a
rainbow?

right turn,
distance

How many
degrees do you
need to draw a
circle?

Hint: Make sure to indent!



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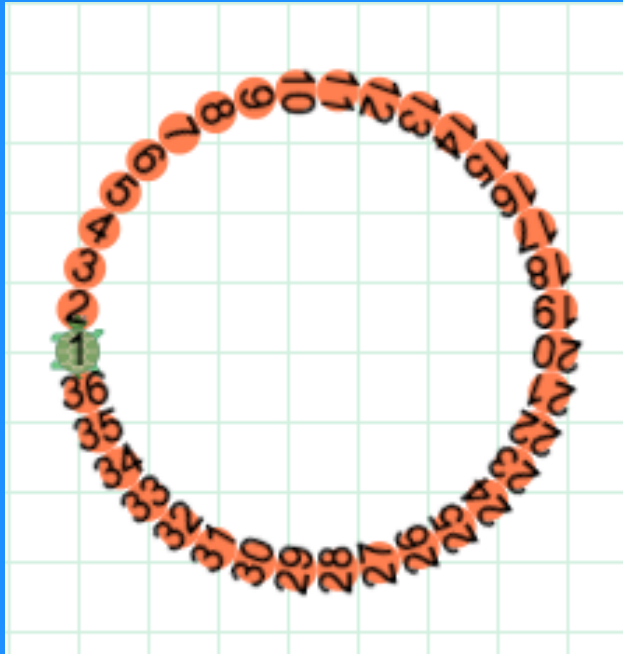
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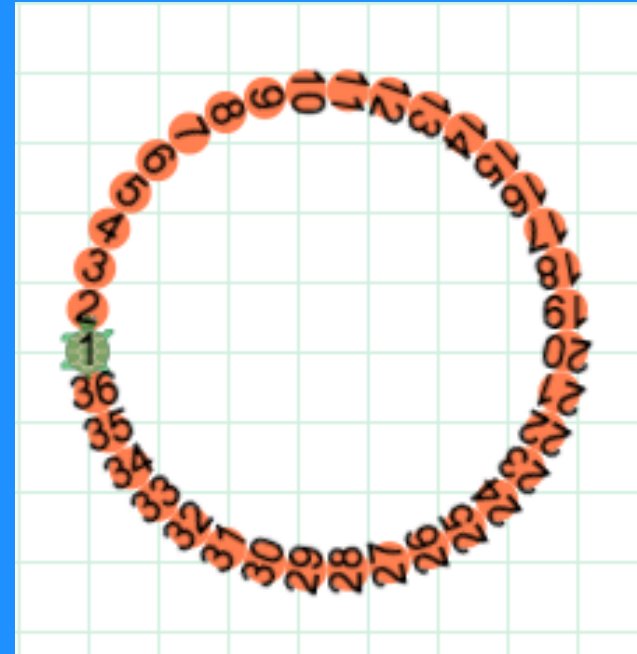
BEADS IN A BRACELET



PROGRAMMER



BEADS IN A BRACELET



PROGRAMMER



Try It Yourself!

Let's make a bracelet using the **for**

loop
makes the
program run
faster

```
1 speed 20  
2 for x in [1..  
3 dot coral, 15  
4 label x  
5 fd 15  
6 rt 
```

How many
times will you
need to
repeat to get
a complete
bracelet?

How many
degrees do you
need to turn?

this will draw
a label on
each dot

Hint: Make sure to indent!



Try It Yourself!

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