# Turtles and Loops

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For each of the following problems, write small program that uses turtles to draw the figure.

DO NOT NAME YOUR HOMEWORK turtle.py DOING SO WILL RESULT IN A ZERO.

## 1 Turtle Olympics

Write a program (or function if you know how) which uses a turtle or turtles to draw the Olympic ring logo. Extra credit if you can get the rings to overlap and cross over and under correctly.

#### 2 Turtle Clock

Draw the face of analog clock using a turtle. It should resemble the following picture, but you can be creative! Remember the stamp() function a turtle can use, as well as penup().

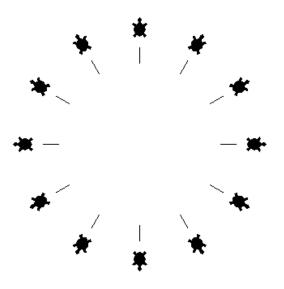


Figure 1: A clock of turtles.

#### 3 Initials

Write a program or function that draws your initials.

### 4 Draw Shape

Write a program that asks a user to input the number of sides they would like, which we'll call n. Your turtle should then draw an n-sided regular polygon, i.e. a shape with n sides that all are the same size and all the angles are the same angle. In other words, if n is 3, then your turtle will draw an equilateral triangle. If n is 4, your turtle should draw a square. If n is 5, you have a pentagon with all sides the same. And so on. Please refrain from using the built-in circle function turtles come with.

My hints are as follow

- You should have a for loop that runs n times.
- All the angles in the shape will add up to 360 degrees.
- Check out https://runestone.academy/runestone/books/published/fopp/Projects/drawing\_a\_circle.html#drawing-a-circle

#### 5 Triforce

Draw the following image using turtles:

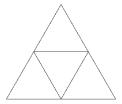


Figure 2: doo doo doo DOO.

### 6 Grading

Each problem is worth 20 points. The extra credit is worth 10 points!