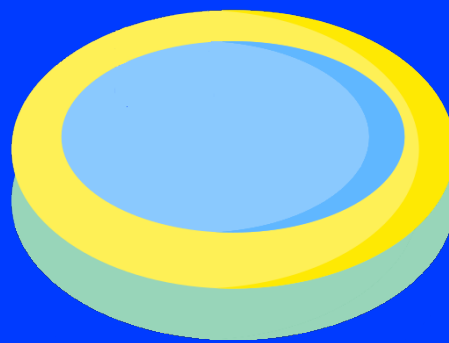




# WADING POOL

< DAY 08 />



# WADING POOL



## Hack The Box

In addition to the tasks below, we encourage you to discover the [Hack The Box Academy](#). Try to go as far as possible!

Work on it as soon as you have a bit of time, or whenever you need a break in you day!



Today you'll discover some Python's *third party libraries*, also named *packages*.

"Third party" implies that those library does not already comes with your standard Python installation. You will have to install those third party libraries yourself.

## Joking

### Task 1.1



Find the [pyjokes](#) package.

Then, install it on your machine.



Check out **PIP** (Package Installer for Python).

Eventually, print a Chuck Norris fact.



## Drawing

### Task 2.1

---



Find the `turtle` package.  
Then, install it on your machine.  
Eventually, write a program that use this package to draw a square.

### Task 2.2

---



Can you explain precisely the following snippet of code? Which drawing will you see?

```
import turtle
toto = turtle.Screen()
toto.bgcolor("black")
titi = turtle.Turtle()
titi.color("red")
for i in range(3):
    titi.right(90)
    titi.circle(42)
toto.exitonclick()
```

### Task 2.3

---



Using `turtle`, write a function `draw_polygon(sides)` that takes an integer parameter `sides`.  
The function draws a regular polygon with the given number of sides:

- ✓ if `sides = 3`, then it draws an equilateral triangle ;
- ✓ if `sides = 4`, then it draws a square ;
- ✓ if `sides = 5`, then it draws a pentagon ;
- ✓ if `sides = 6`, then it draws a hexagon ;
- ✓ and so on...

### Task 2.4

---

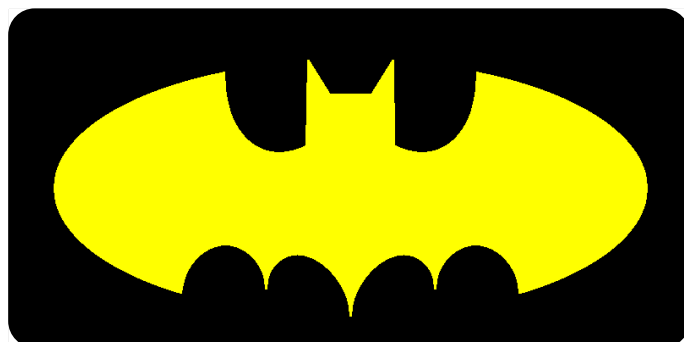
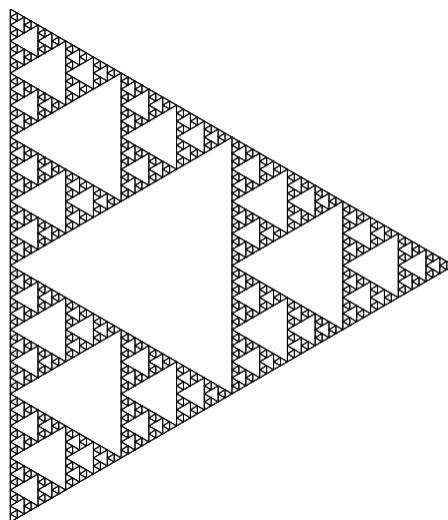
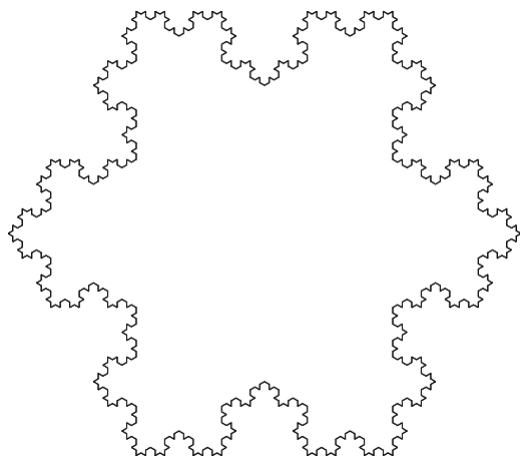
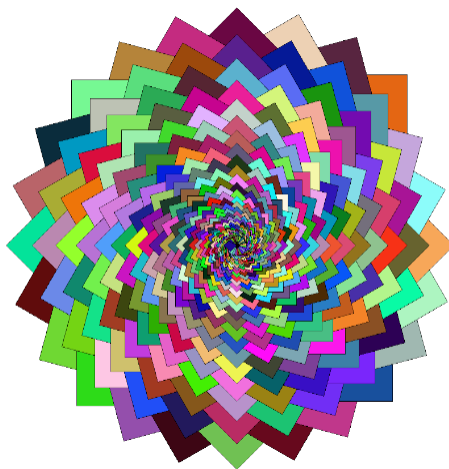
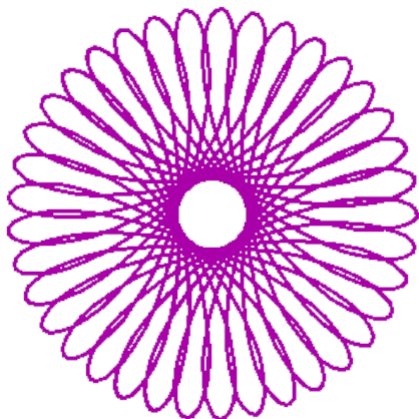


Using `turtle`, write a program to draw a spiral.



## CHALLENGE

Using `turtle` and as few lines of code as possible, reproduce one (or more) of the following images.



## Gaming

### Task 3.1

---



Install the `pygame` package. Then, create a `hangman` folder.

### Task 3.2

---



At the root of your `hangman` folder, create a `main.py` program to:

- ✓ import and **initialize** the `pygame` package ;
- ✓ set up a `pygame` window having width = height = 600 px.

Run your program, a window should briefly appear then disappear.

### Task 3.3

---



Add a loop to your `main.py` in order to:

- ✓ keep running if nothing happens ;
- ✓ look for some `pygame's event` ;
- ✓ close the window if the user clicks on its specific button.

Run your program, the window should stay unless you manually close it.

### Task 3.4

---



Browse the web to find a nice background image.

Download it inside an appropriate folder.

Then, modify your `main.py` program to:

- ✓ **load** this background image inside the game ;
- ✓ **blit** the loaded image to the window ;
- ✓ **display** the window with the image.

Run your program to check if you did it right.

### Task 3.5

---



Inside your `main.py`, create a function that draws a stickman inside the game window.

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{EPITECH}