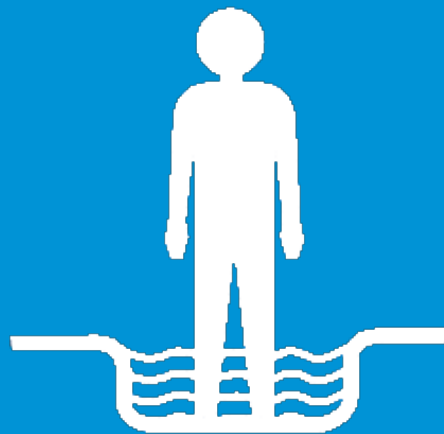




PRE-POOL

DAY 08



PRE-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 your 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.
Eventually, print a Chuck Norris fact.



The well named **PIP** (Package Installer for Python) is the usual tool for this job.

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

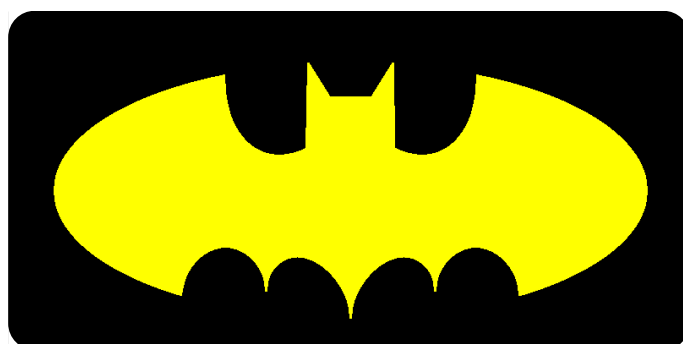
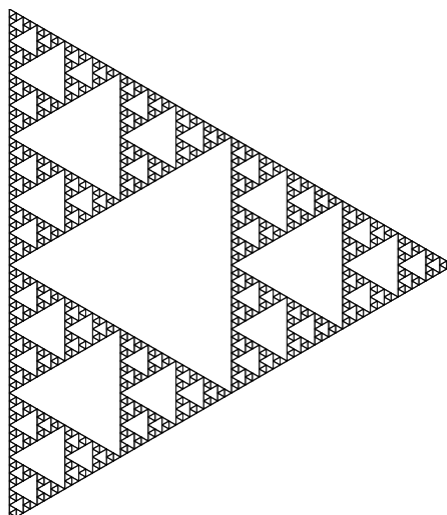
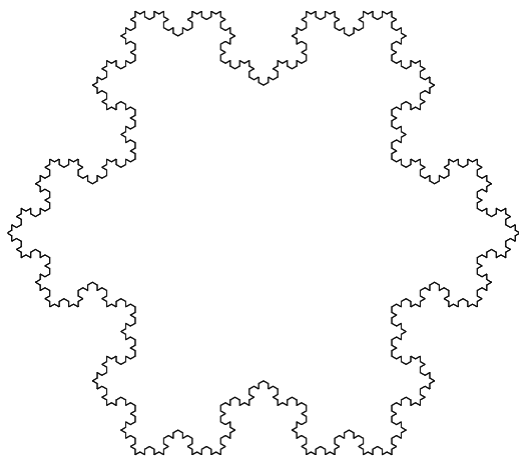
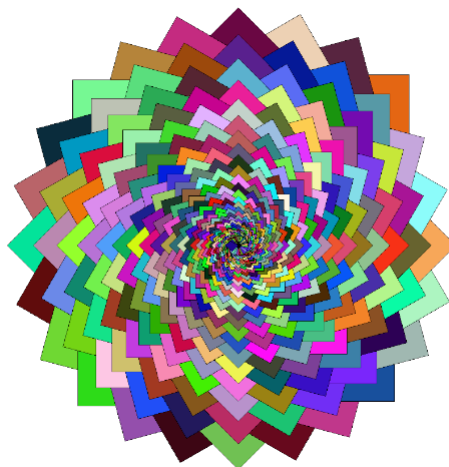
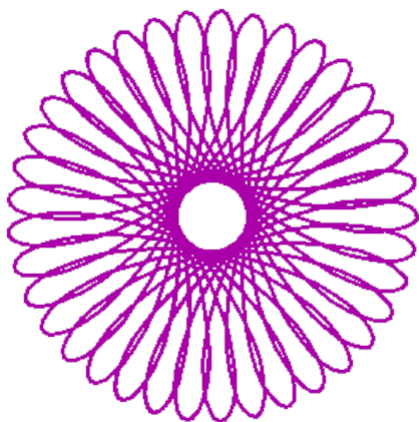


Using `turtle`, write a program to draw a spiral.



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.

{EPITECH}

