**Homework 1**

1.

- How to check a variable’s type?

Dùng lệnh type()trong Terminal. VD:

|  |  |
| --- | --- |
| >>> type("ahihi")  <class 'str'> | "ahihi" là biến str (chuỗi ký tự) |
| >>> type(1234)  <class 'int'> | 1234 là biến int (số nguyên) |
| >>> type(12.34)  <class 'float'> | 12.34 là biến float (số thập phân) |

- In what cases, you will get SyntaxError from the compiler telling you

that some of your variables have invalid names? Can you give 3 different

examples of invalid names?

Các trường hợp lỗi khi đặt tên biến:

+ Tên biến không bắt đầu bằng chữ cái. VD: 12abcd

+ Tên biến có biểu tượng đặc biệt. VD: tiendola$, abc]

+ Tên biến trùng với từ khóa đặc biệt (keywords) trong Python. VD: and, for, from

2.

Write a program that calculates the area of a circle. The circle radius is entered by users

r = float(input("Radius? "))

print("Area =", 3.14\*r\*\*2)

3.

Write a program that converts Celsius (0C) into Fahrenheit (0F)

c = float(input("Enter the temperature in Celsius? "))

f = c \* 1.8 + 32

print(c, "(C) =", f, "(F)")

4. Use Python Turtle to draw the following shapes

|  |  |  |
| --- | --- | --- |
| A square | A triangle | Circle |
| from turtle import \*  color("green", "yellow")  begin\_fill()  for i in range(3):  forward(100)  left(90)  forward(100)  end\_fill()  mainloop() | from turtle import \*  color("green", "yellow")  begin\_fill()  for i in range(2):  forward(100)  left(120)  forward(100)  end\_fill()  mainloop() | from turtle import \*  color("green", "yellow")  begin\_fill()  circle(100)  end\_fill()  mainloop() |
| Multi-Circles | | |
| from turtle import \*  color("green")  n = int(input("How many circles do you want to draw? "))  for i in range(n):  circle(100)  left(360/n)  mainloop() | | |

5.

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