**Don’t add unnecessary white spaces**

Let us use the online Python IDE <https://repl.it/languages/python3>

1. Comments

Add “#” before a line to make it a comment. Comments for us and the computer will ignore them.

**To do:** Write a comment to say **This is the first time I am coding in Python**

1. print() will print whatever is given within ()

**To do:** Write a program to say “Hello World!”

|  |
| --- |
| print(“hello world!) |

1. **Variables**

Variables are storage buckets for storing data. Data can be numbers, letters or True/False flags.

Numbers are indicated as **int, float** etc. Letters are indicated by **str**. True/False are **bool** values.

To assign values to a variable, you will use the = sign

**To do:**

In your program, create a variable called num1.

Assign 5 to this number

|  |
| --- |
| num1=5 |

In your program, create a variable called num2.

Assign 2 to this number

|  |
| --- |
| num2=2 |

In your program, create a variable called message.

Assign “new message” to this variable

|  |
| --- |
| message=“new message” |

1. Arithmetic operators (+ - \* / %)

**To do:**

In your program, add num1 and num2. Save to a new variable called sum. Display sum.

In your program, subtract num1 and num2. Save to a new variable called diff. Display diff.

In your program, multiply num1 and num2. Save to a new variable called prod. Display prod.

**To do:** In your program let us divide 2 numbers and save to a new variable called quotient.

Display quotient.

|  |
| --- |
| quotient = num1 / num2  print(quotient) |

% operator returns the remainder instead of the quotient when dividing 2 numbers.

**To do:** In your program

find the remainder by dividing 2 numbers.

Save this to a variable called remainder.

Display remainder

|  |
| --- |
| remainder = num1 % num2  print(remainder) |

1. input()

Sometimes we need to get user input. In that situation we use input()

To do:

In your program,

Ask the user to enter their age. Save it to a variable called age.

|  |
| --- |
| age = input(“Enter your age”) |

1. Conditional statements

Sometimes in your program you have to make decisions. We do that using “if” statement.

**To do:**

Based on age, if under 21 say “You cannot vote yet” otherwise say “Please vote!”

**Note that I had to convert age to integer before comparing it**

|  |
| --- |
| if (int(age) < 21):  print(“You cannot vote yet!”)  else:  print(“Please vote!”) |

1. Converting data types

Sometimes you have to convert one data type into another like in the last example:

**To do:**

Convert kilometers to miles

Miles = kilometer \* 0.62

First we get input for kilometers and store in variable called km.

Next we multiply km by 0.62. Before that you have to convert km to a decimal by using float() function

Then display miles

|  |
| --- |
| km = input("Enter how many kilometers you drove")  miles = float(km) \* 0.62  print(miles) |