# Additional Python Exercises

## Sum of digits for an integer input

Write the Python code to produce the following output:

Graphical user interface, text

Description automatically generated

**Solution:**

Text

Description automatically generated

## Convert temperature from degree centigrade to Fahrenheit

Write the Python code to produce the following output:

Graphical user interface, text

Description automatically generated

Hint: 0˚C = 32˚F, Formula = (0°C × 9/5) + 32 = 32°F

**Solution:**

A screenshot of a computer

Description automatically generated with medium confidence

## Calculate the average

Write the Python code to produce the following output:

Text

Description automatically generated

Hint: Add all the numbers up and divide by how many numbers there are to work out the average

**Solution:**

Text

Description automatically generated

## Reverse integer

Write the Python code to produce the following output:

Text

Description automatically generated

**Solution:**

Graphical user interface, text

Description automatically generated

## Check if a value is a prime number

Design a flowchart to check if an input number is a prime number or not and then display a message stating “Is Prime” if the input number is a prime number or “Not Prime” if the input number is not a prime number.

Then convert the flowchart to python code and test your code with the following inputs:

|  |  |
| --- | --- |
| **Input number:** | **Result:** |
| 2 | Is Prime |
| 11 | Is Prime |
| 35 | Not Prime |
| 43 | Is Prime |

## PI

Write the python code to calculate PI, accurate to 2 decimal places. You must not use any of the python libraries.

## Leap year

Write the Python code to produce the following output:

Text

Description automatically generated

Then additionally test the code with the following data:

|  |  |
| --- | --- |
| **Enter a year:** | **Result:** |
| 1945 | Not a Leap Year |
| 1969 | Not a Leap Year |
| 2004 | Leap Year |
| 2020 | Leap Year |

**Solution:**

Text

Description automatically generated

## Output 1:

Given the code below, what will be the output?

Graphical user interface, application

Description automatically generated

1. 52
2. 2704
3. 28561
4. 67108864

**Answer:** c

## Output 2:

Given the code below, what will be the output?

Graphical user interface, text, application

Description automatically generated

1. 62
2. 62.5
3. 1
4. 0.016

**Answer:** a

## Output 3:

Given the code below, what will be the output?

A screenshot of a computer screen

Description automatically generated with low confidence

1. Ash6
2. AshAshAshAshAshAsh
3. AshAsh3
4. AshAshAshAshAsh

**Answer:** b

## Output 4:

Given the code below, what will be the output?

A screenshot of a computer screen

Description automatically generated with medium confidence

1. 182
2. 37
3. Error
4. 182.0

**Answer:** d

## Output 5:

Given the code below, what will be the output?

Text

Description automatically generated

1. prrr
2. prrrr
3. ruff
4. Error

**Answer:** c

## Output 6:

Given the code below, what will be the output?