Lab 2 – Variables and Data Types

Part1: Write a Python program that produces the following output:

```
     A
   A   A
   AAAAAAA
  A         A
 A             A
```

using ONLY the following values in your print statements:

```
letter_a = "A"
three_spaces = "   "
```

Use *string formatting options with the above two values;* DO NOT pad with spaces!

You may use EOL characters so your print statements don't stretch to over 80 characters.

There are lots of different ways to do this. Just find something that works.

Part2: Write a Python program that produces the following output:

```
100 multiplied by 3.14159 = 314.15900
The type of 100 is <class 'int'>
The type of 3.14159 is <class 'float'>
The unique object identifier of 100 is 140724642960128
The unique object identifier of 3.14159 is 1637132560336
```

Use num1 = 100, num2 = 3.14159

Part3: Complete the following Python program that answers the questions stated in the comments:

```python
# Part 3: Are strings the same?

string1 = "Hello"
string2 = "Hello"
# Verify these are the same object...Are these strings
the same?
## Code something here that answers the above question ##
string1 = string1 + " There"
string2 = string2 + " There"
# How about now? Are these the same string now?
# Are they the same string as their previous values when
defined?
## Code something here that answers the above question ##
# Are these numbers the same?
num1 = 10
num2 = 10.0
## Code something here that answers the above question ##
# Verify that Python assigns a different object reference
to
# num1 and num2 than it had before the arithmetic
num1 = num1 + 100 ;
num2 = num2 - 5
## Code something here that answers the above question ##
```