CPSC 1301, Computer Science I Lab Assignment

Lab 02b

Problem 1

Write a Python program that prints "Hello World."

```
C:\Users\ccc31\cols-st\cpsc1301\tests>a11_helloworld.py
Hello, World
```

Problem 2

Write a Python program that accepts a command line argument and prints it as output.

```
C:\Users\ccc31\cols-st\cpsc1301\tests>a12_useargument.py Student
Hi, Student. How are you?
```

Problem 3

Write a Python program that accepts several command line arguments and prints the number of arguments as output.

```
C:\Users\ccc31\cols-st\cpsc1301\tests>a12_useargument_2.py CSU Computer Science student
There are 5 command line arguments.
```

Problem 4

Write a Python program that accepts several command line arguments and prints the arguments as output.

```
C:\Users\ccc31\cols-st\cpsc1301\tests>a12_useargument_3.py CSU Computer Science student
There are 5 arguments from the command line.
*       C:\Users\ccc31\cols-st\cpsc1301\tests\a12_useargument_3.py
*       CSU
*       Computer
*       Science
*       student
```

Problem 5

A ruler divided in sixteenths of an inch has these fractions: $\frac{1}{16}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, ... Write a program that prints the *denoinators* of an inch, i.e., 16, 8, 16, 4, ...

```
C:\Users\ccc31\cols-st\cpsc1301\tests>a21_ruler.py
16
16 8 16
16 8 16 4 16 8 16
16 8 16 4 16 8 16 2 16 8 16 4 16 8 16
```

Problem 6

Write a Python program that accepts two integers as command line arguments and illustrates the following arithmetic operations:
- addition
- subtraction
- multiplication
- integer division
- modulus
- square (exponentiation)

```
C:\Users\ccc31\cols-st\cpsc1301\tests>a22_intops.py 23 41
23 +  41 = 64
23 -  41 = -18
23 *  41 = 943
23 / 41 = 0
23 // 41 = 0
23 %  41 = 23
23 ** 41 = 6773938926074521886113798804777437053955385200790909223
```