**Lesson 1: Output data (Solutions)**

Copy and paste this example code before you start completing the challenges.

Num1 = 1

Num2 = 1

Total = Num1+Num2

print(Total)

Programming challenges – Part A:

1. Set Num1 to 20, Set Num2 to 30, add them together and output the answer using an appropriate message. **(Use No. 3 on the knowledge organiser to help you)**

Num1 = 20

Num2 = 30

Total = Num1 + Num2

print("The total is", Total)

1. Set Num1 to 43, set Num2 to 12, subtract Num2 from Num1 and output the answer using an appropriate message. **(Use No. 3 on the knowledge organiser to help you)**

Num1 = 43

Num2 = 12

Total = Num1 - Num2

print("The total is", Total)

In Python, there are several arithmetic operators available. Look at the table below to see what each operator represents before moving onto the next set of challenges.

Fig 1. Table of arithmetic operators

Fig 1.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **+** | **-** | **/** | **//** | **\*** | **\*\*** | **%** |
| Addition | Subtraction | Float division | Integer division | Multiplication | Exponentiation  (To the power of) | Modulus  (Remainder) |

Programming challenges – Part B:

1. Set Num1 to 12, set Num2 to 7, **multiply** these two numbers and output the answer using an appropriate message.

Num1 = 12

Num2 = 7

Total = Num1 \* Num2

print("The total is", Total)

1. Set Num1 to 100, set Num2 to 2, Divide Num1 by Num2 by using **Integer division** and output the answer using an appropriate message.

Num1 = 100

Num2 = 2

Total = Num1 // Num2

print("The total is", Total)

1. Set Num1 to 25 and set Num2 to 3. Use **Modulus** to divide Num1 by Num2 and output the answer using an appropriate message.

Num1 = 25

Num2 = 3

Total = Num1 % Num2

print("The total is", Total)

1. Set Num1 to 3 and set Num2 to 2. Use **Exponentiation** to raise Num1 to the power of Num2 and output the answer using an appropriate message.

Num1 = 3

Num2 = 2

Total = Num1 \*\* Num2

print("The total is", Total)

1. Set Num1 to 12, set Num2 to 8 and set Num3 to 2. Add Num1 and Num2 together inside closed brackets, then divide by Num3. Output the answer using an appropriate message.

Num1 = 12

Num2 = 8

Num3 = 2

Total = (Num1+Num2)/Num3

print("The total is", Total)