# gArithmetic Functions

**Enumerable.Range(Int32, Int32)**

**[Not that useful in c# but used a lot in python for loops]**

**decNum = 32.7865m;**

**Console.WriteLine(Math.Truncate(decNum));**

**Int num = Math.Truncate(decNum);**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the function** | **Identify**  **Drag the correct c# code example(s)** | **Describe**  **What is it?**  **What is the purpose of the function?** | **Apply**  **Apply your knowledge and write some pseudocode for the function** |
| **Random** |  | Picks a random number out of a range, in this case 0 to 100. | RandNum = Random (1,100) |
| **Range** |  | Sets the parameters for the numbers that can or cannot be used | LoopNumber = Range(1,100) |
| **Round** |  | Rounds the number up or down depending on which it is closer to.  9.7 to 10 and 9.3 to 9. | WholeNumber = Round(RealNumber) |
| **Truncation** |  | It truncates a number, dropping the decimals.  9.73423 is truncated to 9. | TruncNumber = (RealNumber) |

# String Handling Functions

**Enumerable.Range(Int32, Int32)**

**[Not that useful in c# but used a lot in python for loops]**

**decNum = 32.7865m;**

**Console.WriteLine(Math.Truncate(decNum));**

**Int num = Math.Truncate(decNum);**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the function** | **Identify**  **Drag the correct c# code example(s)** | **Describe**  **What is it?**  **What is the purpose of the function?** | **Apply**  **Apply your knowledge and write some pseudocode for the function** |
| **Concatenation** |  | Adds 2 strings together one after the other. | Conc = (String1 + String2) |
| **Length** |  | Determines the length of a string. | Num = Length(String) |
| **Position** |  | Finds the position of a character in a string. | myString = 'Position of a character'  myString.find('s')  // output would be 2  myString.find('x')  // output would be -1  .find could be replaced by .Position or .index  instead of -1 the program could give an error |
| **Get Position (Substring)** |  | Gets the position of a character in a string. |  |
| **String Conversion**  **(to string, string to)** |  | Converts a different datatype, such as int to string. | String.Parse(Int1) |

# 7General Functions

**Enumerable.Range(Int32, Int32)**

**[Not that useful in c# but used a lot in python for loops]**

**decNum = 32.7865m;**

**Console.WriteLine(Math.Truncate(decNum));**

**Int num = Math.Truncate(decNum);**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the function** | **Identify**  **Drag the correct c# code example** | **Describe**  **What is it?**  **What is the purpose of the function?** | **Apply**  **Apply your knowledge and write some pseudocode for the function** |
| **Input** |  | Inputs data to a value |  |
| **Output/Print** |  | Outputs a predetermined value |  |
| **Open (file)** |  | Finds and opens a file |  |
| **Close (file)** |  | Closes an already open file |  |