Assignment #: 4

Due date: November 5th, 2021

Q. 1. Write the codes for the following four equations and show output (Screenshot). (4 points)

$$p_i = \frac{\sum_{k-1}^{m} \mu_{p_i}(x_k) \times (x_k)}{\sum_{k-1}^{m} \mu_{p_i}(x_k)}, \forall k = 1, 2, \cdots, m$$

$$p_i = \frac{\int_k^m x_k \times \mu_{p_i}(x_k)\, dx}{\int_k^m \mu_{p_i}(x_k)\, dx}$$

$$S(x, z) = \left\{ \frac{\mu_S(x, z)}{(x, z)} | (x, z) \in X \times Z \right\}$$

$$J_{ind}(l) = \begin{cases} 1, & \text{if } n = 0 \\ \frac{\left(\sum_{i=1}^{n} g_i\right)^2}{n \sum_{i=1}^{n} (g_i)^2}, & \text{Otherwise} \end{cases}$$

Q. 2. Write code for the following table and print the screenshot. (3 points)

Hint: Use the https://www.tablesgenerator.com to setup the table and generate the code.

Table 1: A table without vertical lines.

	Treatment A	Treatment B
John Smith	1	2
Jane Doe	–	3
Mary Johnson	4	5

Q. 3. Write code for the following algorithm and print the screenshot. (3 points)

Algorithm 1 Compute sum of integers in array

```
1: procedure ARRAYSUM(A)
2:     sum = 0
3:     for each integer i in A do
4:         sum = sum + i
5:     end for
6:     Return sum
7: end procedure
```