****

**كلية العلوم**

**قسم الفيزياء والفلك**

**College of Sciences**

**Department of**

**Physics and Astronomy**

**Tutorial 7**

10

|  |  |  |
| --- | --- | --- |
|  | **PHYS 400**  | **Academic year 1444 H**  |
| **Computational Physics** |  **Semester 442** |

|  |  |  |
| --- | --- | --- |
| **Student’s Name** |  | **اسم الطالب** |
| **ID number** |  | **الرقم الجامعي** |

Consider the function

1. find the exact value of the integral

1. Write a Python program allowing to evaluate the integral of the function in the interval [0, 10] using 100 slices by the **Simpson 1/3 method**.

 *Save the program and name it: T7*



1. Fill the following table:

|  |  |
| --- | --- |
| **Number of slices**  | **Integral evaluated by Simpson 1/3 rule** |
| 100 |  |
| 104 |  |
| 106 |  |

 Compare the results with the exact value and conclude

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………....