****

**كلية العلوم**

**قسم الفيزياء والفلك**

**College of Sciences**

**Department of**

**Physics and Astronomy**

**Tutorial 9**

10

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

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

Consider the function , using **Newton method**:

1. Write the results of the first five steps (hand execution) starting from with a tolerance of 10-3 (hint: )
2. Write a Python program allowing to find numerically the root of the function using **Newton method**. Fill the following table:

|  |  |
| --- | --- |
| **tolerance** | **root**  |
| 0.1 |  |
|  |  |
|  |  |
|  |  |

 **Conclude**:

………………………………………………………………………………………………………………………………………………………………………

*Save the program and name it: T9*

