|  |  |  |
| --- | --- | --- |
|  | {{method}} |  |
| * Problem Statement | For the function : | |
| * Requirements | Use Fixed point Iteration method to compute the root of the function with an initial guess of {{x}} for {{iteration}} iterations or until the approximate error < {{ approximate}} | |
| * Solution: The formula of the Fixed-Point Iteration method is:   {{gx}}  1. The first iteration :  {{x}} {{x1}}    {{ea1}}  The 1st iteration doesn’t have either nor , as there isn’t a previous approximation.  2. The second iteration :  {{x1}} {{x2}}    {{ea2}}  3. The third iteration :  {{x3}} {{x3}}    {{ea3}}  Then, the root of the function after achieving the required conditions is :  {{xreal}}  And so on for the rest iterations until reaching a termination condition, as the following table: | | |