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|  | {{method}} |  |
| * Problem Statement | For the function | |
| * Requirements | Use the secant method to estimate the roots of the function using the initial estimates {{x}} and {{x1}} Continue for {{iteration}} iterations or until the approximate error {{ approximate}} | |
| * Solution: The formula of the Secant method is:   1. The first iteration :  {{x}} {{fx}}  {{x1}} {{fx1}}  ={{x2}}  ={{ea1}}    The 1st iteration doesn’t have either nor , as there isn’t a previous approximation.  2. The second iteration :  {{x1}} {{fx1}}  {{x2}} {{fx2}}  ={{x3}}  {{x3}}    ={{ea2}}  3. The third iteration :  {{x2}} {{fx2}}  {{x3}} {{fx3}}  ={{x4}}    ={{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: | | |