

Judging Parameters for the software:

1. **Utility-** This is a very useful software for school and college students, and for people in the fields of science, mathematics, and engineering. The graph functionality is a very innovative feature, since scientific calculator softwares and graph softwares are available separately, but very few provide both the functionalities in a single software. It is also very easy to understand and use, new users will face no problems.
2. **Portability and ease of distribution-** Since this software has been developed in Java, so it is platform-independent, and the software has been bundled up as a .jar file(Java Archive) so its size is very minimal(around 40 KB only) compared to softwares developed in other platforms. Hence it can be easily distributed over the Internet even on slow connections. And with some minor modifications, this software can run as an Applet in a web-browser, adding cool functionalities to web-sites. Also the User-Interface (GUI) has been developed in Swing, so it is modern and contemporary looking, and independent of the appearance of the operating system.

3. **Algorithm-** The software works on Polish notation algorithm. All the operators have been assigned precedence, including the trigonometric and logarithm functions, which are implemented as operators. The expression entered by the user in the input display is read by the program, the infix notation is converted to postfix notation keeping the operator precedence in mind. Then the postfix expression is evaluated and the end result is displayed in the output display. The algorithm is very simple and efficient, allowing very little room for error. Since a double constant has a very large range, it can process large numbers easily.
4. **User Friendly-** This software has been designed keeping the end-user in mind, and it has been specifically developed so that even a school student can operate it easily, and there is enough functionality and scope to keep the advanced user busy!!! Students trying to trace complex curves will find this software very useful, and also for large mathematical calculations, at times at out of range of hand-held scientific calculators. Eg. A regular Casio hand held scientific calculator can calculate the factorial of numbers till 69 only, whereas this scientific calculator can display the factorial of numbers upto 170!!

5. **How far is the software able to achieve its**

objectives?- This software was built keeping school and college going students, of maths, science, and engineering, and their mathematical and computational needs in mind, while keeping things and operation very simple so users are not daunted by the complexity of simple tasks. As far as these objectives are concerned, the software does achieve them to a great extent, since the USP of JSciCalc is its simplicity and user-friendliness.

6. **Resources used-** The software does not require a high end machine to run smoothly, it can run even on modestly configured computer systems, and does not use up a significant chunk of memory too. So it is a frugal consumer of resources!!!