

## SOLUTION TO CUBIC EQUATION USING JAVA PROGRAMMING

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### ABSTRACT

Solving cubic equation is one of the non-linear Algebraic equation in mathematics. Many Cubic equations can be solved algebraically, however many cannot be solved, because of the complexity. The discriminant approach for solving cubic equation is adopted in this study to generate the solution. This study is used to design a programming solution to solve cubic equation using java programming language. This solution was developed by using the Eclipse as integrated Development Environment (IDE) to compile, run and for finding the bugs in the program. Usually large errors in using mathematical algorithms are treated by using the cubic equations. Using this application, we can outline the way of solving this cubic equation. In the view of the implication of findings, it was recommended that there is a need for design and development of computational solution and utilization into classroom study. Finally, this programme can give solution to two problems such that we can able to generate the root values for the given cubic equation. And also we can able to generate the cubic equation by giving the three real root values. Many examples have been worked out, and in most cases, we found out the exact solution.

**Keywords:** Cubic Equation, nonlinear Algebraic equation, Discriminant approach, Eclipse, Integrated Development Environment.