

CHAPTER VI

Conclusion

6.1 Conclusion

Bisection algorithm, Newton's Raphson algorithm, and Secant Algorithm have a similarity. The similarity is to producing roots from the equation. All of the algorithm run with different accuracy. Bisection algorithm find the roots based on the interval provided. So, bisection algorithm cannot find the roots outside the interval. Newton have the same calculation, need an interval with 2 different number, and insert the interval into the calculation, of course with some iterations. Secant method need determination of two initial numbers, so it can be calculated.

All of the algorithm produce many coordinates that can build the graph. The equation always have some of roots. We can find a root when $y=0$. Roots near $y=0$ can use to make a graph. Graph in applet still shaped a line, not a curve.

6.2 Further Research

In its development, a good graph should be a curve. Using 3 algorithm in this project can producing many coordinates. That coordinates can build a good curve with other method except in this project. Line is different with curve, line cannot warp, but a good curve must be warp.

For data storage can use a balancing tree. When algorithm produce coordinates, parent will become a child, and child will become a parent. It will be a rotation in the tree, so it become balance.

Example of balancing tree is red black tree / avl tree. Red black more efficient and detailed than the avl. But both of them have rules for the rotation. The balancing tree can make searching more easy and search more faster. Show the coordinates and solution in interface maybe ease teachers / students to learn.

This application maybe become user friendly, if there is some color in the graph. It can be more than one color if we show full of the algorithm. Red for bisection, blue for newton's raphson, and yellow for secant / anything.

