



Ahsanullah University of Science and Technology (AUST)
Department of Computer Science and Engineering

Course No. : CSE2202
Course Title : Numerical Methods Lab

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Section : A2

Online 1:Implementation of Bisection Method

```

class bisection{
    static final float EPSILON = (float)0.01;
    static double func(double x)
    {
        return x*x*x - x*x + 2;
    }
    static void bisection(double a, double b)
    {
        if (func(a) * func(b) >= 0)
        {
            System.out.println("You have not assumed"
                               + " right a and b");
            return;
        }
        double c = a;
        while ((b-a) >= EPSILON)
        {
            c = (a+b)/2;
            if (func(c) == 0.0)
                break;
            else if (func(c)*func(a) < 0)
                b = c;
            else
                a = c; }
        System.out.printf("The value of root is : %.4f"
                          ,c); }
    public static void main(String[] args)
    {
        double a = -200, b = 300;
        bisection(a, b);
    }
}

```

