

# Binary Search

```
def BinarySearch(a, b, e, n):  
    f = parse_expr(expression)  
    for i in range(n):  
        p = (a + b)/2  
        fp = N(f.subs(x, p))  
        print(p, fp)  
        if not fp or abs(fp) < e: return p  
        if fp * N(f.subs(x, a)) > 0: a = p  
        else: b = p  
    return "Failed"
```