Incremental Search Method

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Algorithm 1 Incremental Search

```
1: procedure IncrementalSearch
2:     x_0
3:     delta
4:     Iterations
5:     if i > y=0 then
6:         x_1 = x_0 + Δy_1 = f(x_1)
7:         counter = x_1
8:         while y_0 * y_1 > 0 & y_1! = 0 and counter ≤ iter do
9:             x_0 = x_1
10:            y_0 = y_1
11:            x_1 = x_0 + delta
12:            y_1 = f(x_1)
13:            counter + +
14:        end while
15:        if y_1 = 0 then
16:            "X_1 is a root"
17:        else if y_0 * y : 1 < 0 then
18:            "There's a root between x_0 and x_1"
19:        else
20:            Fail
21:        end if
22:    end if
23: end procedure
```