Incremental-search algorithm

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This algorithm is used in order to find a range of numbers that contain a root for a given non-linear ecuation (and linears too).

$y = 0$

print("x$_0$ *is a root*") $x_1 = x_0 + delta$ $y_1 = f(x_1)$ *counter* $= 1$ **while**$y_0 * y_1 > 0$ *and* $y_1! = 0$ *and counter*

  x$_0 = x_1$ $y_0 = y_1$ $x_1 = x_0 + delta$ $y_1 = f(x_1)$ *counter* $++$ **end**

  if $y_1 = 0$ **then**

    print("x$_1$ *is a root*") **else**

      if $y_0 * y_1 < 0$ **then**

        print("There's a root between x$_0$ *and* x_1") **else**

          print("Fail");

        end

      end