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SECANT METHOD

1. start
2. Define function as $f(x)$
3. Input initial guesses a and b, tolerable error (e) and maximum iteration (N)
4. Initialize iteration counter $i = 1$
5. if $f(a) = f(b)$ then print "Invalid interval" and goto (11) otherwise goto (6)
6. Calculate $m = \frac{a f(b) - b f(a)}{f(b) - f(a)}$
7. Increment iteration counter $i = i + 1$
8. if $i >= N$ then print "Not convergent" and goto (11) otherwise goto (9)
9. If $|f(m)| > e$ then set $a = b$, $b = m$ and goto (5) otherwise goto (10)
10. print root as X_2
11. Stop