

Rem.: (i) No need for f' !

... so-called quasi-Newton methods

(ii) Converges with $\rho = \frac{1}{2}(1 + \sqrt{5}) \approx 1.618$

... faster than bisection, but slower than Newton

(iii) Fails when $f(x^{(k)}) = f(x^{(k-1)})$

(iv) Generalizes to systems