

Maos 2021 b)

$$g(x) = (x^2 - 1) / 3$$

$$x = \sqrt{10}$$

for i in range(1, N):

$$x = g(x)$$

if i == 2: print x

$$p = (p-1)^2 / 3$$

$$3p = p^2 - 1$$

$$p^2 - 3p - 1 = 0$$

$$p = \frac{3 \pm \sqrt{13}}{2}$$

$$x_0 = \sqrt{10}$$

$$x_1 = g(\sqrt{10}) = (10-1)/3 = 3$$

$$x_2 = g(3) = (9-1)/3 = 8/3$$