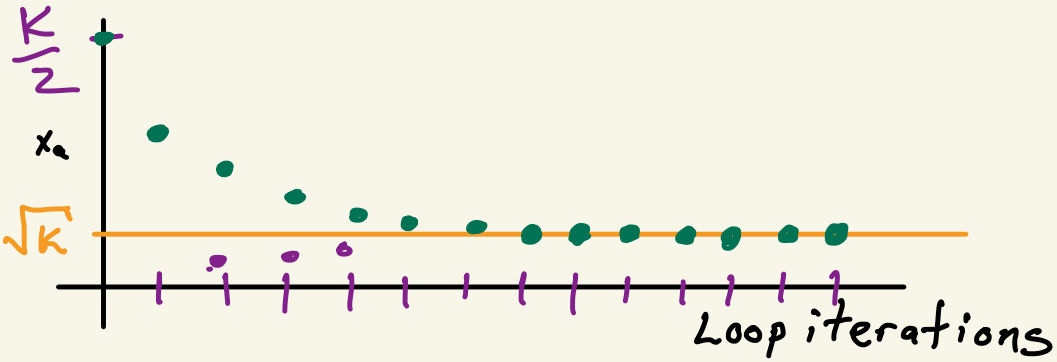
Convergence of the Square root algorithm



- stop when $\Delta x_a \approx 0$, last x_a
- $f(x) = 0 \rightarrow x_a$ is a root of $f(x)$.
  $x_a = \sqrt{K}$ $\quad f(x_a) = 0 \rightarrow x_a = \sqrt{K}$

$$f(x_a) = x_a^2 - K$$

test: $\dfrac{|(x_a^2 - K)|}{K} > \epsilon$ → continue

Not − stop