CP.1.4.13, Sauer3

For the function

$$f(x) = \left(1 - \frac{3}{4x}\right)^{\frac{1}{3}}$$

a. Find the root of the function.

b. Apply Newton's Method using an initial guess near the root and plot the first 50 iterates. This is another way Newton's Method can fail, by producing a chaotic trajectory.

c. Why are Theorems 1.11 and 1.12 not applicable?