Fixed-Point Iteration

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fixed_point _iteration.m is designed for finding a numerical solution to $f(y) = 0$ (f is defined below) where $z = 6$.

$$f(y) = y - \sqrt{z + y}$$

Initial value for y is 1, the initial value is important because of the nature of fixed-point iteration. I also set the tolerance to 10^{-8}.

z value is subject to change, however one should change initial y value accordingly. Also, tolerance is subject to change.

Also, one can change f function which is defined at the end of the file and g function must be changed according to rule below.

$$f(y) = 0 \iff g(y) = y$$