

PH 354: hw 2, problem 5

Alankar Dutta

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Using the original form of the equations as given fails to converge to the solution. Instead it oscillates wildly.

The equations can be rearranged to

$$x = \sqrt{\frac{b}{y}} - a \text{ and } y = \frac{x}{a+x^2}$$

This set of equations quickly converge to the analytic result