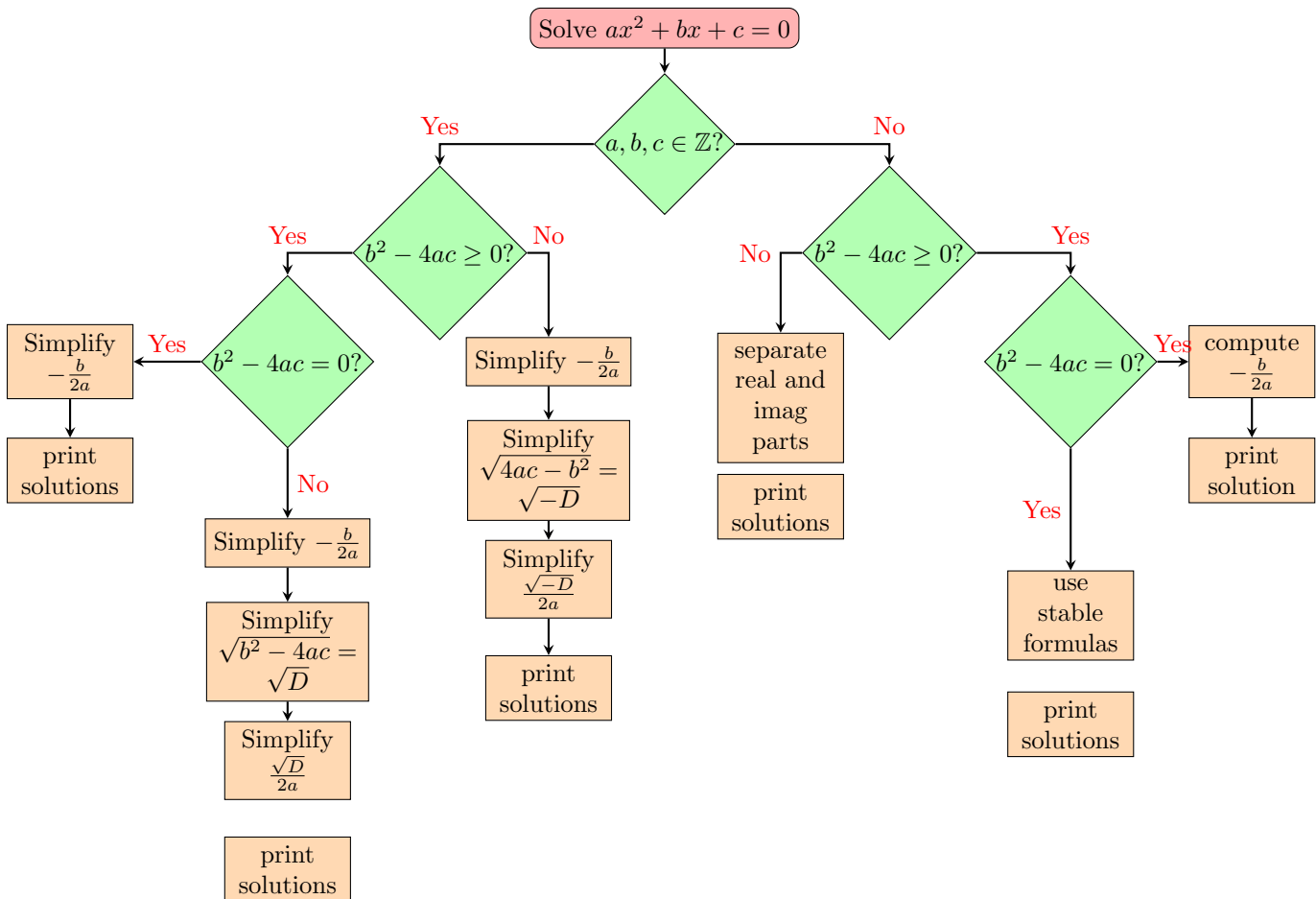


Implement the following algorithm for solving quadratic equations. See <http://tinyurl.com/zwfwqe4> for stability discussion.



The program should prompt the user as to whether they want to solve a quadratic with integer coefficients and get the exact, simplified solutions, or whether they want to solve for approximate solutions.

A typical run might look like this:

This program will solve a quadratic equation in either integer (exact) mode or floating point (approximate) mode.

Does your quadratic have integer coefficients? y

Ok. Enter three integer coefficients, a, b, and c: 2 2 8

The solutions to $2x^2 + 2x + 8 = 0$ are

$x_1 = -1/2 - \text{sqrt}(15)*i/2$

$x_2 = -1/2 + \text{sqrt}(15)*i/2$

Enter three integer coefficients, or 'q' to quit: