RECURSION – "SQUAREROOTAPPROX"

Lab Description : Use an ancient mathematical method of recursion to find a square root.

The following method was known to the ancient Greeks for computing square roots:

- Given a value $x > 0$ and a guess g for the square root, a better guess is $(g + x/g) / 2$.
- Write a recursive helper method `public static squareRootGuess(double x, double g).`
- If g^2 is approximately equal to x, return g, otherwise, return `squareRootGuess` with the better guess.
    - (for instance, you could say that "*approximately equal*" means within `0.001`)
- Then write a method `public static squareRoot(double x)` that uses the helper method.