This quiz is open book.

Given the following equations:

\[(x - 1)^2 + (y - 1)^2 = 1\]
\[(x - 1)^2 + (y + 1)^2 = 4\]

(1) Locate graphically where the roots are (approximately)

(2) (a) Write two equations so that Jacobi method can be applied.

(b) Perform Three iterations on these equations using the concept of Gaus-Seidel. Start with \(x=0.5\) and \(y=0.5\).

(3) Write two equations so that iterations can be performed using Simplified Newton Method. Show all of your steps. Do not iterate.