

CP.2.7.8.b2c, Sauer3

Apply Broyden II with starting guesses $x_0 = (1, 1)$ and $B_0 = I$ to the systems in EX.2.7.3. Report the solutions to as much accuracy as possible and the number of steps required.

$$(b) \begin{cases} u^2 + 4v^2 &= 4 \\ 4u^2 + v^2 &= 4 \end{cases} \quad (c) \begin{cases} u^2 - 4v^2 &= 4 \\ (u - 1)^2 + v^2 &= 4 \end{cases}$$