

Jacobi Method Solution:

[1.00000000e+00 1.00000000e+00 3.00000000e+00 2.00000000e+00
3.00000000e+00 3.00000000e+00]

Iterations: 45

Residual norm: 1.0569323194431385e-11

Gauss-Seidel Method Solution:

[1. 1. 3. 2. 3. 3.]

Iterations: 24

Residual norm: 2.220446049250313e-16

SOR Method Solution ($w=1.1$):

[1. 1. 3. 2. 3. 3.]

Iterations: 18

Residual norm: 1.1102230246251565e-16

Conjugate Gradient Method Solution:

[1. 1. 3. 2. 3. 3.]

Iterations: 6

Residual norm: 2.220446049250313e-16