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|  | **Title: Numerical Analysis (A.R. Vasishtha)** |
|  | **Gauss-Seidel iteration method** |
|  | **Solve the following system by iteration Gauss-Seidel methods:**    **Solution:**  Since the requirement for iteration is satisfied by these equations, we solve each equation for the unknown having the largest coefficient and the new equations are    **Gauss – Seidel iteration method.** Starting with y = 0, z = 0, we get = first approximation.  Putting we get  = First approximation.  Now putting in (4) we get  = first approximation.  **Now we obtain the second approximations**    Similarly, we get    Since  are sufficiently close to  respectively, So the values 2.426, 3.527, 1.926 can be taken as the solution of the system. |