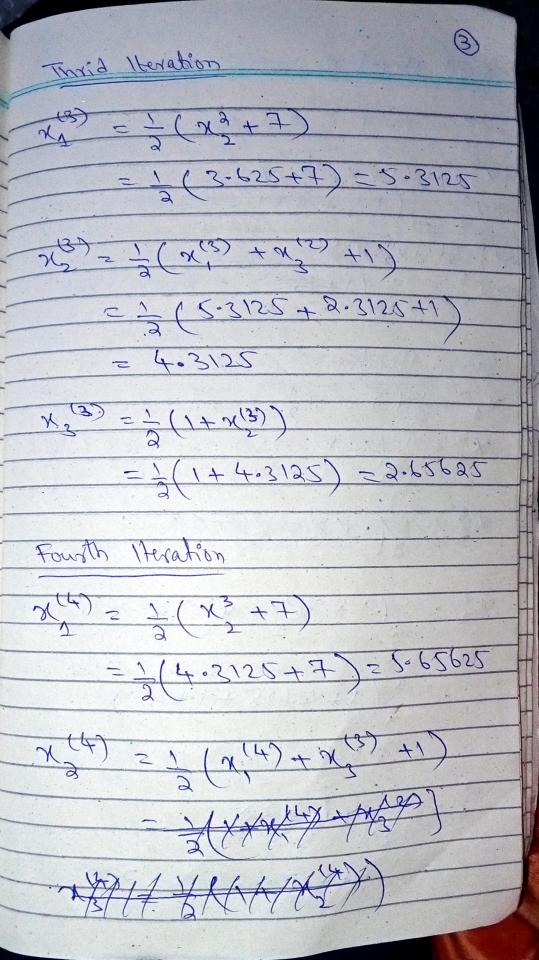


GAUSS SEIDAL METHOD Q: Solve the system by using bauss - Seidal iterative method $0x^{1} - x^{2} + 0x^{3} = 1$ |3| > 1 - 11 + 1 - 11 $0x^{1} - x^{2} + 0x^{3} = 1$ |3| > 1 - 11 + 1 - 11 $0x^{1} - x^{2} + 0x^{3} = 1$ |3| > 1 - 11 + 1 - 11191>101+1-11 2x1 - 22 + 0x2 = 7 T+5K = F+ 2X0+ CX = 1X -x1 +2x2 -x3 =1 x2 = +x1 + x3 +1 = -px -x2 + 2x3 21 X3 = +0x1 +x2 +1 = X2+1 Initial Approximation NO 50 NO 0 NO 50.

First Heration

$$\begin{array}{l}
\Rightarrow x^{\frac{1}{2}} = 0 + \overline{7} = \overline{7} = 3.5 \\
\Rightarrow x^{\frac{1}{2}} = \frac{1}{3}(1 + x_{3}^{(1)} + x_{2}^{(0)}) \\
\Rightarrow x^{\frac{1}{2}} = \frac{1}{3}(1 + x_{3}^{(1)} + x_{2}^{(0)}) \\
\Rightarrow x^{\frac{1}{3}} = \frac{1}{3}(1 + x_{3}^{(1)} + x_{2}^{(1)}) \\
\Rightarrow x^{\frac{1}{3}} = \frac{1}{3}(1 + x_{2}^{(1)}) \\
\Rightarrow x^{$$



$$x_{14} = \frac{1}{2} (1 + x_{14})$$

$$= \frac{1}{2} (1$$

seventh Heration x(7) = 5-9570 x2 = 409570 x2(#) = 29785 22 = 4.9570 = 6 22 = 4.9570 = 5 23 - 2.9785 = 3 x1=6 -> xoots $\frac{\chi_2 = 5}{\chi_3 = 3}$