Metodos Numericos
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Método Gauss Siedel.

$$x_1 = \frac{b_1 - a_{12}x_2 - a_{13}x_3}{a_{11}} \qquad x_2 = \frac{b_2 - a_{21}x_1 - a_{23}x_3}{a_{22}}$$

$$x_3 = \frac{b_3 - a_{31}x_1 - a_{32}x_2}{a_{33}}$$

$$x_1 = \frac{7.85 - (-0.1)x_2 - (-0.2)x_3}{3} = \frac{7.85 + 0.1x_2 + 0.2x_3}{3}$$

$$x_2 = \frac{-19.3 - 0.1x_2 - (-0.3)x_3}{7} = \frac{-19.3 - 0.1x_2 + 0.3x_3}{7}$$

$$x_3 = \frac{71.4 - 0.3x_1 - (-0.2)x_3}{10} = \frac{71.4 - 0.3x_1 + 0.2x_2}{10}$$

Suponiendo que x_2 y $x_3 = 0$.

$$x_1 = \frac{7.85 + 0.1(0) + 0.2(0)}{3} = 2.616$$

$$x_2 = \frac{-19.3 - 0.1(2.616) + 0.3(0)}{7} = -2.794$$

$$x_3 = \frac{71.4 - 0.3(2.616) + 0.2[-2.794]}{10} = 7.005$$

$$x_1' = \frac{7.85 + 0.1(-2.794) + 0.2(7.005)}{3} = \frac{8.971}{3} = 2.990$$

$$x_2' = \frac{-19.3 - 0.1(2.990) + 0.3(7.005)}{7} = \frac{-17.997}{7} = -2.499$$

$$x_3' = \frac{71.4 - 0.3(2.990) + 0.2[-2.499]}{10} = \frac{70.003}{10} = 7.000$$