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16/ENG07/011

Petroleum Engineering

ENG 382

Assignment 4

$$10m_1 - 2m_2 + m_3 = 9$$

$$-2m_1 + 10m_2 - 2m_3 = 12$$

$$-2m_1 - 5m_2 + 10m_3 = 18$$

$$\text{Initial } m_0 = [0; 0; 0]$$

$$m_1 = \frac{m_2}{5} - \frac{m_3}{10} + 0.9$$

$$m_2 = \frac{m_1}{5} + \frac{m_3}{3} + 1.2$$

$$m_3 = \frac{m_1}{5} + \frac{m_2}{2} + 1.8$$

①

$$m_1 = 0.2(0) - 0.1(0) + 0.9 = 0.9$$

$$m_2 = 0.2(0) + 0.2(0) + 1.2 = 1.2$$

$$m_3 = 0.2(0) + 0.5(0) + 1.8 = 1.8$$

②

$$m_1 = 0.2(1.2) - 0.1(1.8) + 0.9 = 0.96$$

$$m_2 = 0.2(0.9) + 0.2(1.8) + 1.2 = 1.74$$

$$m_3 = 0.2(0.9) + 0.5(1.2) + 1.8 = 2.58$$

$$m_1 = 0.2(1.74) - 0.1(2.58) + 0.9 = 0.99$$

$$m_2 = 0.2(0.96) + 0.2(2.58) + 1.2 = 1.908$$

$$m_3 = 0.2(0.96) + 0.5(1.74) + 1.8 = 2.862$$

$$m_1 = 0.2(1.908) - 0.1(2.862) + 0.9 = 0.9954$$

$$m_2 = 0.2(0.99) + 0.2(2.862) + 1.2 = 1.9704$$

$$m_3 = 0.2(0.99) + 0.5(1.908) + 1.8 = 2.952$$