



Dane

$$m_1, m_2, J_A, R, r$$

Szukane

$$\sum F = m \underline{a} \quad \epsilon$$

$$\sum M_A = \epsilon \cdot J_A$$

$$G_1 = m_1 \cdot g$$

$$G_2 = m_2 \cdot g$$

$$\textcircled{1} \quad m_1 \underline{a_1} = G_1 - \underline{S_1}$$

$$\textcircled{2} \quad m_2 \underline{a_2} = \underline{S_2} - G_2$$

$$\textcircled{3} \quad J_A \underline{\epsilon} = S_1 \cdot R - S_2 \cdot r$$

$$\textcircled{4} \quad \epsilon = \frac{a_1}{R} \quad \rightarrow \underline{a_2 = \epsilon R}$$

$$\textcircled{5} \quad \epsilon = \frac{a_2}{r} \quad \rightarrow \underline{a_2 = \epsilon r}$$

$$m_1 \epsilon \cdot R = G_1 - S_1 \quad \rightarrow \underline{S_1 = G_1 - m_1 \epsilon \cdot R}$$

$$m_2 \epsilon \cdot r = S_2 - G_2 \quad \rightarrow \underline{S_2 = G_2 + m_2 \epsilon \cdot r}$$

$$J_A \underline{\epsilon} = (G_1 - m_1 \underline{\epsilon \cdot R}) \cdot R - (G_2 + m_2 \underline{\epsilon \cdot r}) \cdot r$$

$$J_A \cdot \epsilon = G_1 R - G_2 r - m_1 R^2 \cdot \epsilon - m_2 r^2 \cdot \epsilon$$

$$(J_A + m_1 R^2 + m_2 r^2) \epsilon = G_1 R - G_2 r$$

$$\epsilon = \frac{G_1 R - G_2 r}{J_A + m_1 R^2 + m_2 r^2}$$