Finally, we can find an expression for the specific fuel consumption:

\[ S = \frac{m_2 + m_{a_{22}} + m_{a_{23}}}{F} \]

Multiply + Divide the numerator by \( m_0 \):

\[ S = \frac{m_0 \left( \frac{F}{m_0 + m_f} \right)}{\frac{m_0 \left( \frac{F}{m_0 + m_f} \right)}{m_0 + m_f}} \]

Multiply + Divide denominator by \( m_0 + m_f \):

\[ S = \frac{(\frac{F}{m_0 + m_f})}{\frac{(1 + \alpha) F}{(m_0 + m_f)}} \]