Solution for exercise 6.2.3 in Karlin and Pinsky

\[ E \left[ \sum_{i=1}^{N} W_i \right] = E \left[ \sum_{i=1}^{N} iS_i \right] \]

\[ = \sum_{i=1}^{N} iE [S_i] \]

\[ = \sum_{i=1}^{N} \frac{i}{\mu_i} \]