1. Pairwise Comparison Matrix (PCM):

$$A = \begin{bmatrix} 1 & a_{12} & \cdots & a_{1n} \\ \frac{1}{a_{12}} & 1 & \cdots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ \frac{1}{a_{1n}} & \frac{1}{a_{2n}} & \cdots & 1 \end{bmatrix}$$

2. Normalized Pairwise Comparison Matrix (NPCM):

$$N = \begin{bmatrix} \frac{1}{\sum_{j=1}^{n} a_{1j}} & \frac{a_{12}}{\sum_{j=1}^{n} a_{1j}} & \cdots & \frac{a_{1n}}{\sum_{j=1}^{n} a_{1j}} \\ \frac{1}{\sum_{j=1}^{n} a_{2j}} & \frac{1}{\sum_{j=1}^{n} a_{2j}} & \cdots & \frac{a_{2n}}{\sum_{j=1}^{n} a_{2j}} \\ \vdots & \vdots & \ddots & \vdots \\ \frac{1}{\sum_{j=1}^{n} a_{nj}} & \frac{1}{\sum_{j=1}^{n} a_{nj}} & \cdots & \frac{1}{\sum_{j=1}^{n} a_{nj}} \end{bmatrix}$$

3. Criteria Weights (W_C):

$$W_C = \text{Principal eigenvector of } N$$

4. Alternative Scores (S_A):

$$S_A = \begin{bmatrix} \sum_{j=1}^{n} N_{1j} \cdot W_{Cj} \\ \sum_{j=1}^{n} N_{2j} \cdot W_{Cj} \\ \vdots \\ \sum_{j=1}^{n} N_{nj} \cdot W_{Cj} \end{bmatrix}$$

Where:

- n is the number of criteria (or alternatives).
- a_{ij} represents the pairwise comparison between criterion i and criterion j.
- N_{ij} represents the element in row i and column j of the normalized pairwise comparison matrix N.
- W_{Cj} represents the weight of criterion j in the criteria weight vector W_C.