Izvodenje ukupne magnitude ~~za~~ GRUPU ZVEZDA

$$M_1 = M_S - 2{,}5 \log \frac{L_1}{L_S}$$

$$\log \frac{L_1}{L_S} = \frac{M_S - M_1}{2{,}5} = 0{,}4 (M_S - M_1)$$

$$\frac{L_1}{L_S} = C^{M_S - M_1}$$

$$\frac{L_1}{L_S} + \frac{L_2}{L_S} + \dots + \frac{L_n}{L_S} = C^{M_S - M_{TOT}}$$

$$C^{M_S - M_1} + C^{M_S - M_2} + \dots + C^{M_S - M_n} = C^{M_S - M_{TOT}}$$

$$\frac{C^{M_S}}{C^{M_1}} + \frac{C^{M_S}}{C^{M_2}} + \dots + \frac{C^{M_S}}{C^{M_n}} = \frac{C^{M_S}}{C^{M_{TOT}}}$$

$$\frac{1}{C^{M_1}} + \frac{1}{C^{M_2}} + \dots + \frac{1}{C^{M_n}} = \frac{1}{C^{M_{TOT}}}$$

$$\frac{C^{M_2} \cdot C^{M_3} \dots C^{M_n} + C^{M_1} \cdot C^{M_3} \dots C^{M_n} + \dots + C^{M_1 \cdot M_2 \cdot M_3} \dots C^{M_{n-1}}}{C^{M_1} \cdot C^{M_2} \dots C^{M_n}} = \frac{1}{C^{M_{TOT}}}$$

$$\frac{C^{M_1+M_2+\dots+M_n-M_1} + C^{M_1+M_2+\dots+M_n-M_2} + \dots + C^{M_1+M_2+\dots+M_n-M_n}}{C^{M_1+M_2+\dots+M_n}} = \frac{1}{C^{M_{TOT}}}$$

$$\frac{\sum_{i=1}^{n} C^{(\sum_{i=1}^{n} M_i - M_i)}}{C^{\sum M_i}} = \frac{1}{C^{M_{TOT}}}$$

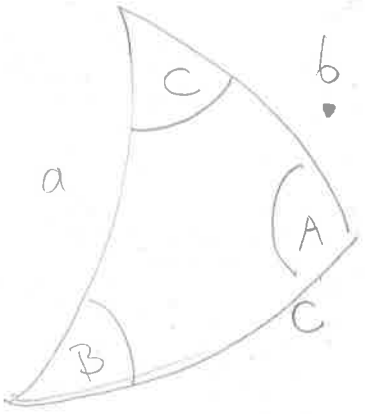
$$C^{M_{TOT}} = \frac{C^{\Sigma M_i}}{\Sigma C^{(\Sigma M_i - M_i)}} \quad / \log_C$$

$$M_{TOT} = \Sigma M_i - \log_C \left(\Sigma C^{(\Sigma M_i - M_i)} \right)$$

$$= \Sigma M_i - \frac{\log_{10}(\quad)}{\log_{10} C}$$

$$\boxed{M_{TOT} = \Sigma M_i - 2{,}5 \log_{10} \left(\sum_{i=1}^{n} C^{[\sum_{n=1}^{n} M_i - M_i]} \right)}$$

KOSINUSNO PRAVILO



$$\cos a = \cos b \cos c + \sin a \sin b \cos A$$

SINUSNO PRAVILO

$$\frac{\sin a}{\sin A} = \frac{\sin b}{\sin B}$$