

[illegible]

$$\leq \text{H}_{\text{F}}^{\text{L}} + \text{H}_{\text{F}}^{\text{R}} + \text{H}_{\text{F}}^{\text{M}}$$

$$\leq \frac{1}{2} \left(\frac{1}{2} + \frac{1}{2} \right) = \frac{1}{2}$$

$$\leq \frac{H_1}{H_2} + \frac{H_2}{H_3} + \dots + \frac{H_{n-1}}{H_n}$$