

[illegible]

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

$$\leq \frac{1}{\epsilon} \left(\sum_{i=1}^n \left| \langle \phi_i | \rho | \phi_i \rangle - \frac{1}{d} \right| + \sum_{i=1}^n \left| \langle \psi_i | \rho | \psi_i \rangle - \frac{1}{d} \right| \right)$$

$$\leq \text{[diagram 1]} \cdot \text{[diagram 2]} : \quad \text{[diagram 3]} = \text{[diagram 4]}$$