

$$\leq \frac{1}{\sqrt{\pi}} \int_0^1 \left| \frac{f(t)}{t} - \frac{f(1)}{1} \right| dt + \frac{1}{\sqrt{\pi}} \int_1^\infty \left| \frac{f(t)}{t} - \frac{f(1)}{1} \right| dt$$

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

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

$$\leq \frac{1}{\sqrt{\pi}} \int_0^1 \left| \frac{f(x)}{x} - \frac{f(y)}{y} \right| dx + \frac{1}{\sqrt{\pi}} \int_0^1 \left| \frac{f(x)}{x} - \frac{f(y)}{y} \right| dy$$