

Soit a, b, c trois nombre strictement positifs. On a :

$$a^{\frac{1}{108}} b^{\frac{3}{4}} c^6 \leq \frac{1}{27} a^{\frac{1}{4}} + \frac{26}{27} (b^{\frac{3}{4}} c^6)^{\frac{27}{26}} = \frac{1}{27} a^{\frac{1}{4}} + \frac{26}{27} (b^{\frac{3}{4}} c^6)^{\frac{1}{26}} (b^{\frac{3}{4}} c^6) =$$
$$\frac{1}{27} a^{\frac{1}{4}} + \frac{26}{27} (b^{\frac{104}{104}} c^{\frac{3}{13}}) (b^{\frac{3}{4}} c^6) \leq \frac{1}{27} a^{\frac{1}{4}} + \frac{26}{27} \left(\frac{6}{13} b^{\frac{1}{16}} + \frac{7}{13} c^{\frac{3}{7}} \right) (b^{\frac{3}{4}} c^6)$$

$$\text{Donc } a^{\frac{1}{108}} \leq \frac{1}{27} \frac{a^{\frac{1}{4}}}{(b^{\frac{3}{4}} c^6)} + \frac{26}{27} \left(\frac{6}{13} b^{\frac{1}{16}} + \frac{7}{13} c^{\frac{3}{7}} \right)$$