$$\frac{(a^{\frac{1}{m}} - a^{\frac{1}{n}})^2 + 4a^{m+n/mn}}{(a^{\frac{2}{m}} + a^{\frac{2}{n}})((a^{m+1})^{\frac{1}{m}} + (a^{n+1})^{\frac{1}{n}}))} = \frac{(a^{\frac{1}{m}} - a^{\frac{1}{n}})^2 + 4 * a^{\frac{m}{mn}} * a^{\frac{n}{mn}}}{\left(a^{\frac{1}{m}} + a^{\frac{1}{n}}\right)\left(a^{\frac{1}{m}} - a^{\frac{1}{n}}\right)\left(a * a^{\frac{1}{m}} + a * a^{\frac{1}{n}}\right)}$$

$$= \frac{a^{\frac{2}{m}} - 2a^{\frac{1}{m}}a^{\frac{1}{n}} + a^{\frac{2}{m}} + 4a^{\frac{1}{m}}a^{\frac{1}{n}}}{a\left(a^{\frac{1}{m}} + a^{\frac{1}{n}}\right)^2\left(a^{\frac{1}{m}} - a^{\frac{1}{n}}\right)} = \frac{\left(a^{\frac{1}{m}} + a^{\frac{1}{n}}\right)^2}{a\left(a^{\frac{1}{m}} + a^{\frac{1}{n}}\right)^2\left(a^{\frac{1}{m}} - a^{\frac{1}{n}}\right)} = \frac{1}{a\left(a^{\frac{1}{m}} - a^{\frac{1}{n}}\right)}$$