DATA

b) $a^{5/6} \cdot b^{1/2} \cdot \sqrt[3]{a^{-1/2} \cdot b^{-1}} \cdot \sqrt{a^{-1} \cdot b^{2/3}}$

$a^{5/6} \cdot b^{1/2} \cdot a^{\frac{-1/2}{3}} \cdot b^{-1/3} \cdot a^{-1/2} \cdot b^{\frac{2/3}{2}}$

$a^{5/6} \cdot b^{1/2} \cdot a^{-1/6} \cdot b^{-1/3} \cdot a^{-1/2} \cdot b^{1/3}$

$\left(a^{5/6} \cdot a^{-1/6} \cdot a^{-1/2}\right) \cdot \left(b^{1/2} \cdot b^{-1/3} \cdot b^{1/3}\right)$

$a^{1/6} \cdot b^{1/2} \rightarrow \sqrt[6]{a^1} \cdot \sqrt{b}$

OK.

$a^1 + a^{1/2} \cdot b^{1/2} - b^{1/2} \cdot a^{1/2} + b^1$

$a + b + \sqrt[2]{a \cdot b} - \sqrt[2]{a \cdot b} \rightarrow$

$a + b$

$\frac{b-a}{a+b} \cdot \frac{a+b}{(a^{1/2} - b^{1/2}) \cdot (a^{1/2} + b^{1/2})}$

c) $\left(a^{2/3} + 2^{1/3}\right) \cdot \left(a\sqrt[3]{a} - \sqrt[3]{2 a^2} + \sqrt[3]{4}\right)$

$\left(a^{2/3} + 2^{1/3}\right) \cdot \left(a^1 \cdot a^{1/3} - 2^{1/3} \cdot a^{2/3} + \sqrt[3]{2^2}\right)$

$\left(a^{2/3} + 2^{1/3}\right) \cdot \left(a^{4/3} - 2^{1/3} \cdot a^{2/3} + 2^{2/3}\right)$

DISTRIBUIR:

$a^{2/3} \cdot a^{4/3} - 2^{1/3} \cdot a^{4/3} + a^{2/3} \cdot 2^{2/3} \oplus$

$2^{1/3} \cdot a^{4/3} - 2^{2/3} \cdot a^{2/3} + 2^{1/3} \cdot 2^{2/3}$

$a^{2/3 + 4/3} + 2^{1/3 + 2/3}$

$a^{6/3} + 2^{3/3} \rightarrow a^2 + 2$ //

$\frac{b-a}{a^1 + a^{1/2} \cdot b^{1/2} - b^{1/2} \cdot a^{1/2} - b^1}$

$\frac{b-a}{a-b} = -1$ //

d) $\frac{b-a}{a+b} \cdot \left[a^{1/2} \cdot \left(a^{1/2} - b^{1/2}\right)^{-1} - \left(\frac{a^{1/2} + b^{1/2}}{b^{1/2}}\right)^{-1}\right] \Rightarrow$

$\frac{b-a}{a+b} \cdot \left[\frac{a^{1/2}}{a^{1/2} - b^{1/2}} - \frac{b^{1/2}}{a^{1/2} + b^{1/2}}\right]$

$\frac{b-a}{a+b} \cdot \frac{a^{1/2} \cdot \left(a^{1/2} + b^{1/2}\right) - b^{1/2} \cdot \left(a^{1/2} - b^{1/2}\right)}{\left(a^{1/2} - b^{1/2}\right) \cdot \left(a^{1/2} + b^{1/2}\right)}$

e) $\sqrt{\left[\frac{1}{2} \cdot \left(\frac{a}{b}\right)^{-1/2} - \frac{1}{2} \cdot \left(\frac{b}{a}\right)^{-1/2}\right]^{-2} + 1}$

$\sqrt{\left[\frac{1}{2} \cdot \left(\sqrt{\frac{b}{a}} - \sqrt{\frac{a}{b}}\right)\right]^{-2} + 1}$

$\sqrt{\left(\frac{1}{2}\right)^{-2} \cdot \left(\sqrt{\frac{b}{a}} - \sqrt{\frac{a}{b}}\right)^{-2} + 1}$

$\sqrt{\left(\frac{2}{1}\right)^2 \cdot \left(\frac{1}{\sqrt{\frac{b}{a}} - \sqrt{\frac{a}{b}}}\right)^2 + 1}$