b) $\log_3\left(\dfrac{a^2\sqrt{bc}}{\sqrt[5]{(a+b)^3}}\right) \rightarrow \log_3\left[a^2 \cdot \sqrt{bc}\right] - \left[\log_3 \sqrt[5]{(a+b)^3}\right]$

$\rightarrow \log_3 a^2 + \log_3 \sqrt{bc} - \left[\log_3\left[(a+b)^3\right]^{\frac{1}{5}}\right] \rightarrow$

$\rightarrow 2\log_3 a + \log_3 (bc)^{\frac{1}{2}} - \left[\frac{1}{5} \cdot \log_3 (a+b)^3\right] \rightarrow$

$\rightarrow 2\log_3 a + \frac{1}{2}\left[\log_3 (b\cdot c)\right] - \frac{3}{5}\log_3 (a+b) \rightarrow$

$\rightarrow 2\log_3 a + \frac{1}{2}\left[\log_3 b + \log_3 c\right] - \frac{3}{5}\log_3 (a+b) \rightarrow$

$\rightarrow 2\log_3 a + \frac{1}{2}\log_3 b + \frac{1}{2}\log_3 c - \frac{3}{5}\log_3 (a+b) \; //$

c) $\log\left(c \cdot \sqrt[3]{\dfrac{a\cdot(a+b)^2}{\sqrt{b}}}\right) \rightarrow$

$\log c + \log\left(\dfrac{\sqrt[3]{a(a+b)^2}}{\sqrt[3]{\sqrt{b}}}\right) \rightarrow \log c + \log \sqrt[3]{a(a+b)^2} -$

$\log \sqrt[6]{b} \rightarrow \log c + \log\left[a\cdot(a+b)^2\right]^{\frac{1}{3}} - \log b^{\frac{1}{6}} \rightarrow$

$\log c + \log\left[a^{\frac{1}{3}} \cdot (a+b)^{\frac{2}{3}}\right] - \log b^{\frac{1}{6}} \rightarrow$

$\log c + \log a^{\frac{1}{3}} + \log (a+b)^{\frac{2}{3}} - \frac{1}{6}\log b \rightarrow$

$\log c + \frac{1}{3}\log a + \frac{2}{3}\log (a+b) - \frac{1}{6}\log b \; ///$