

Si $8p > 1$, calculer $x = \left[p + \frac{p+1}{3} \cdot \left(\frac{8p-1}{3} \right)^{\frac{1}{2}} \right]^{\frac{1}{3}} \cdot \left[p - \frac{p+1}{3} \cdot \left(\frac{8p-1}{3} \right)^{\frac{1}{2}} \right]^{\frac{1}{3}}$.

On a successivement :

$$\begin{aligned}
 x &= \left[p + \frac{p+1}{3} \cdot \left(\frac{8p-1}{3} \right)^{\frac{1}{2}} \right]^{\frac{1}{3}} \cdot \left[p - \frac{p+1}{3} \cdot \left(\frac{8p-1}{3} \right)^{\frac{1}{2}} \right]^{\frac{1}{3}} \\
 &= \sqrt[3]{p + \frac{p+1}{3} \cdot \left(\frac{8p-1}{3} \right)^{\frac{1}{2}}} \cdot \sqrt[3]{p - \frac{p+1}{3} \cdot \left(\frac{8p-1}{3} \right)^{\frac{1}{2}}} \\
 &= \sqrt[3]{\left(p + \frac{p+1}{3} \cdot \left(\frac{8p-1}{3} \right)^{\frac{1}{2}} \right) \cdot \left(p - \frac{p+1}{3} \cdot \left(\frac{8p-1}{3} \right)^{\frac{1}{2}} \right)} \\
 &= \sqrt[3]{p^2 - \left(\frac{p+1}{3} \right)^2 \cdot \left(\frac{8p-1}{3} \right)} \\
 &= \sqrt[3]{\frac{27p^2 - (p+1)^2(8p-1)}{27}} \\
 &= \sqrt[3]{\frac{27p^2 - (p^2 + 2p + 1)(8p-1)}{27}} \\
 &= \sqrt[3]{\frac{-8p^3 + 12p^2 - 6p + 1}{27}} \\
 &= \sqrt[3]{\frac{(1-2p)^3}{27}} \\
 &= \boxed{\frac{1-2p}{3}}
 \end{aligned}$$