



$$D.: S_{ACL} = S$$

$$\angle LPB = \alpha$$

$$R.: V_{ABCL}$$

$$S = \frac{1}{2} a \cdot x, \quad a = \frac{2S}{x};$$

$$S_{ABC} = \frac{1}{2} a \cdot h, \quad S_{ABC} = \frac{1}{2} \cdot \frac{2S}{x} \cdot h = \frac{Sh}{x};$$

$$\frac{h}{x} = \cos \alpha, \quad \underline{S_{ABC} = S \cdot \cos \alpha.}$$

$$\begin{cases} l^2 = x^2 + \left(\frac{a}{2}\right)^2; \\ l^2 = a^2 + H^2; \end{cases} \quad \begin{cases} x^2 + \left(\frac{a}{2}\right)^2 = a^2 + H^2 \\ \frac{H}{x} = \sin \alpha; \\ a = \frac{2S}{x} \end{cases};$$

$$\begin{cases} H^2 = x^2 - \frac{3}{4} a^2 \\ x = \frac{H}{\sin \alpha} \\ a = \frac{2S}{H} \cdot \sin \alpha \end{cases}; \quad \begin{cases} H^2 = \frac{H^2}{\sin^2 \alpha} - \frac{3}{4} \cdot \left(\frac{2S}{H} \cdot \sin \alpha\right)^2; \\ H^4 = \frac{H^4}{\sin^2 \alpha} - 3 \cdot S^2 \cdot \sin^2 \alpha; \end{cases}$$

$$\underline{H = \frac{\sin \alpha \cdot \sqrt{3} \cdot S}{\sqrt{\cos \alpha}}.}$$

$$V_{ABCL} = \frac{1}{3} \cdot S_{ABC} \cdot H; \quad V_{ABCL} = \frac{1}{3} S \cdot \sin \alpha \cdot \sqrt{\cos \alpha} \cdot \sqrt{3} \cdot S;$$

$$\underline{V = \frac{1}{3} S^{\frac{3}{2}} \cdot \sin \alpha \cdot \sqrt{3} \cdot \cos \alpha.}$$