

Answer on Question #46312 – Math – Geometry

find the volume of a trough at the form of a prism whose opposite face are equilateral triangle with side side x units and are x units apart

Solution.

The area of an equilateral triangle with side x equals $S = \frac{\sqrt{3}}{4}x^2$.

Thus the volume of a trough equals $V = Sh = \frac{\sqrt{3}}{4}x^2 * x = \frac{\sqrt{3}}{4}x^3$.