

3.24 Prism

Lateral edge: l

Height: h

Lateral area: S_L

Area of base: S_B

Total surface area: S

Volume: V

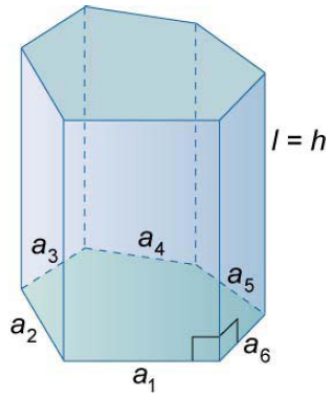


Figure 39.

283. $S = S_L + 2S_B.$

284. Lateral Area of a Right Prism

$$S_L = (a_1 + a_2 + a_3 + \dots + a_n)l$$

285. Lateral Area of an Oblique Prism

$$S_L = pl,$$

where p is the perimeter of the cross section.

286. $V = S_B h$

287. Cavalieri's Principle

Given two solids included between parallel planes. If every plane cross section parallel to the given planes has the same area in both solids, then the volumes of the solids are equal.