3.24 Prism

Lateral edge: l
Height: h
Lateral area: S_L
Area of base: S_B
Total surface area: S
Volume: V

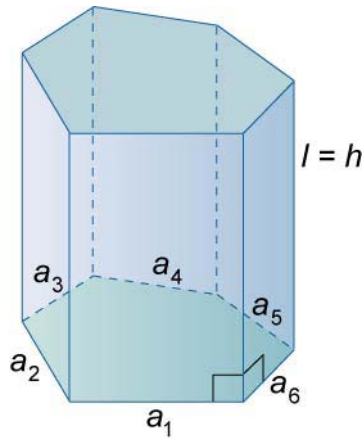

Figure 39.

283. $S = S_L + 2S_B$.

284. Lateral Area of a Right Prism
$S_L = (a_1 + a_2 + a_3 + \ldots + a_n)l$

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.