

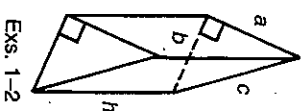
Practice 47

Important Solids

Lessons 12-1 through 12-3

Complete the table for the right triangular prism shown.

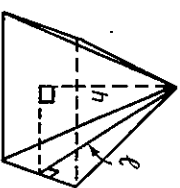
a	b	c	h	L.A.	T.A.	V
6	8	10	5	120	168	120
7	24	25	10	600	728	840



Exs. 1-2

Complete the table for the regular square pyramid shown.

base edge	lateral edge	l	h	L.A.	T.A.	V
18	15	12	$3\sqrt{7}$	432	756	$324\sqrt{7}$
10	$5\sqrt{3}$	$5\sqrt{2}$	5	$100\sqrt{2}$	$100\sqrt{5} + 100$	$166\frac{2}{3}$



Exs. 3-4

Complete the table for a cylinder with dimensions r and h .

r	h	L.A.	T.A.	V
3	5	30π	48π	45π
4	3	24π	56π	48π

Complete the table for a cone with slant height l .

r	h	l	L.A.	T.A.	V
5	12	13	65π	90π	100π
3	$3\sqrt{3}$	6	18π	27π	$9\pi\sqrt{3}$

9. The height of a right prism is 10. Its base is an isosceles trapezoid with sides of lengths 10, 5, 10, and 17. Sketch the prism. Then find the lateral area, total area, and volume.

$$\text{L.A.} = \underline{420}$$

$$\text{T.A.} = \underline{596}$$

$$V = \underline{280}$$

10. Popcorn is sold in a cardboard cylinder with radius 8 cm and height 6 cm. If the same amount of popcorn is to be sold in a cone with radius 6 cm, what should the height of the cone be?

$$\underline{32 \text{ CM}}$$