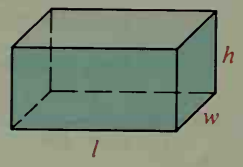
Written Exercises

Exercises 1–6 refer to rectangular solids with dimensions l, w, and h. Complete the table.

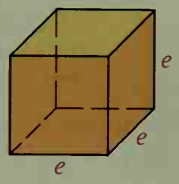
A

	1.	2.	3.	4.	5.	6.
l	6	50	6	?	9	$5x$
w	4	30	3	8	?	$4x$
h	2	15	?	5	2	$3x$
L.A.	?	?	?	?	60	?
T.A.	?	?	?	?	?	?
V	?	?	54	360	?	?



Exercises 7–12 refer to cubes with edges of length e. Complete the table.

	7.	8.	9.	10.	11.	12.
e	3	e	?	?	?	$2x$
T.A.	?	?	?	?	150	?
V	?	?	1000	64	?	?



13. Find the lateral area of a right pentagonal prism with height 13 and base edges 3.2, 5.8, 6.9, 4.7, and 9.4.

14. A right triangular prism has lateral area 120 cm^2. If the base edges are 4 cm, 5 cm, and 6 cm long, find the height of the prism.

15. If the edge of a cube is doubled, the total area is multiplied by ___?___ and the volume is multiplied by ___?___.

16. If the length, width, and height of a rectangular solid are all tripled, the lateral area is multiplied by ___?___, the total area is multiplied by ___?___, and the volume is multiplied by ___?___.

Facts about the base of a right prism and the height of the prism are given. Sketch each prism and find its lateral area, total area, and volume.

17. Equilateral triangle with side 8; $h = 10$

18. Triangle with sides 9, 12, 15; $h = 10$

B

19. Isosceles triangle with sides 13, 13, 10; $h = 7$

20. Isosceles trapezoid with bases 10 and 4 and legs 5; $h = 20$

21. Rhombus with diagonals 6 and 8; $h = 9$

22. Regular hexagon with side 8; $h = 12$