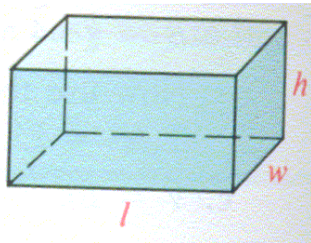
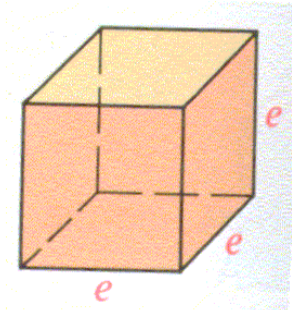


Exercises 1-6 refer to rectangular solids with dimensions l , w , and h . Complete the table.



	1	2	3	4	5	6
l	6	50	6	9	9	$5x$
w	4	30	3	8	6	$4x$
h	2	15	3	5	2	$3x$
Lateral Area	40	2400	54	170	60	$54x^2$
Surface Area	88	5400	90	314	168	$94x^2$
Volume	48	22,500	54	360	108	$60x^3$

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



	7	8	9	10	11	12
e	3	e	10	4	5	$2x$
Surface Area	54	$6e^2$	600	96	150	$24x^2$
Volume	27	e^3	1000	64	125	$8x^3$

13. The base of a right prism is an equilateral triangle with sides of 8 ft. The height of the prism is 10 ft. Sketch the prism and find its surface area and volume.

$$\text{Surface area} = 32\sqrt{3} + 240 \text{ ft}^2$$

$$\text{Volume} = 160\sqrt{3} \text{ ft}^3$$

14. The base of a right prism is a triangle with sides 9 in, 12 in, & 15 in. The height of the prism is 8 in. Sketch the prism and find its surface area and volume.

$$\text{Surface area} = 396 \text{ in}^2$$

$$\text{Volume} = 432 \text{ in}^3$$

15. The base of a right prism is an isosceles triangle with sides 13 m, 13 m, & 10 m. The height of the prism is 7 m. Sketch the prism and find its surface area and volume.

$$\text{Surface area} = 372 \text{ m}^2$$

$$\text{Volume} = 420 \text{ m}^3$$

16. The base of a right prism is an isosceles trapezoid with bases of 10 ft and 4 ft and legs of 5 ft. The height of the prism is 20 ft. Sketch the prism and find its surface area and volume.

$$\text{Surface area} = 536 \text{ ft}^2$$

$$\text{Volume} = 560 \text{ ft}^3$$