

Chapter 11 PRACTICE

for pages 360–361

Volume of Other Solids

To complete the puzzle, use the dimensions given in the clues to find the volume of each solid. Use $\pi \approx 3.14$. Write the digits of the answer in the correct squares. The decimal points should be written in the square with the digit in the ones place.

1.	2.	3.	4.			5.	6.
7.					8.		
9.				10.			
11.			12.				
	13.						14.
15.					16.		
17.				18.			
19.			20.				

Across

1. Cylinder: $r = 3$ in., $h = 6$ in.
5. Rectangular prism:
 $l = 7$ in., $w = 4$ in., $h = 2$ in.
7. Triangular prism:
Base area = 119 in.², $h = 36$ in.
8. Triangular prism:
Base area = 4.5 in., $h = 1.7$ in.
9. Rectangular prism:
 $l = 5$ in., $w = 0.58$ in., $h = 0.5$ in.
10. Prism: Base area = 161 in.², $h = 2.5$ in.
11. Cone: $r = 3.3$ in., $h = 2.7$ in.
13. Rectangular prism:
 $l = 45$ cm, $w = 5.347$ cm, $h = 2.1$ cm
15. Rectangular prism:
 $l = 48.5$ cm, $w = 9.5$ cm, $h = 8$ cm
16. Triangular prism:
Base area = 310 cm², $h = 2.5$ cm
17. Triangular prism:
Base area = 16 cm², $h = 7.375$ cm
18. Rectangular prism:
 $l = 43$ cm, $w = 11$ cm, $h = 4$ cm
19. Triangular prism:
Base area = 8 cm², $h = 5.75$ cm
20. Cylinder: $r = 0.5$ cm, $h = 4.9$ cm

Down

1. Cone: $r = 3$ in., $h = 15$ in.
2. Cylinder: $r = 18.2$ in.
 $h = 6$ in.
3. Cone: $r = 1.2$ in.
 $h = 6.54$ in.
4. Triangular prism:
Base area = 9 in.², $h = 6$ in.
5. Cylinder: $r = 8.3$ in.
 $h = 2.6$ in.
6. Rectangular prism:
 $l = 25$ in., $w = 13.1$ in., $h = 2$ in.
8. Cone: $r = 1.8$ in., $h = 2.07$ in.
10. Rectangular prism:
 $l = 12.5$ cm, $w = 6.4$ cm, $h = 5.65$ cm
12. Triangular prism:
Base area = 9 cm², $h = 8.4$ cm²
14. Triangular prism:
Base area = 85 cm², $h = 65$ cm
15. Cylinder: $r = 10$ cm
 $h = 1$ cm
18. Rectangular prism:
 $l = 3$ cm, $w = 2.5$ cm, $h = 2.4$ cm

PRACTICE

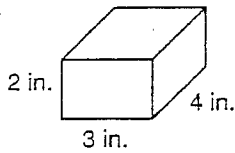
for pages 362–363

Surface Area

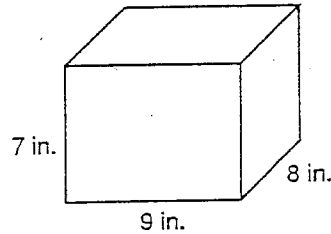
Many manufacturers shrink-wrap their products in plastic to preserve and protect them.

Find out how much plastic is needed to shrink-wrap each object by calculating its surface area. Use $\pi = 3.14$. Then add to find the total. The sum is the year that French chemists discovered the first plastic—polystyrene.

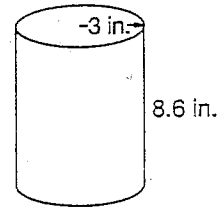
1.



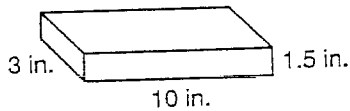
2.



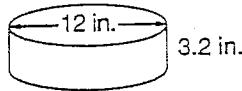
3.



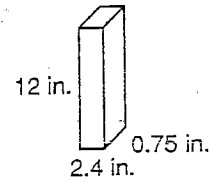
4.



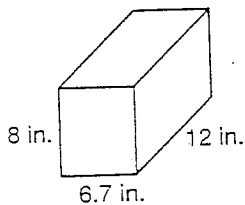
5.



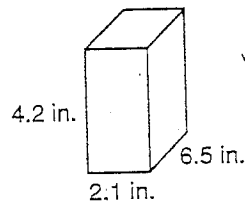
6.



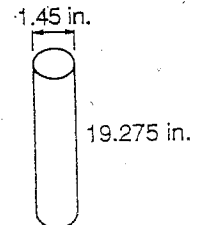
7.



8.



9.



Total: _____