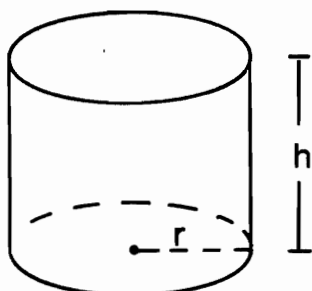




# Solid Fun

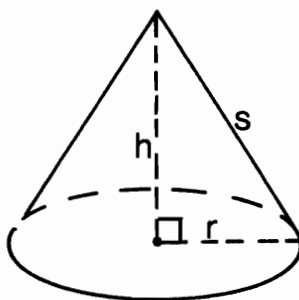


Given under each figure are the formulas for its volume (**V**) and surface area (**S**). Use the appropriate formula to do any exercise below (use  $\pi \doteq 3.14$ ). Circle the letter of the correct answer. Write this letter in each box at the bottom of the page that contains the number of that exercise.



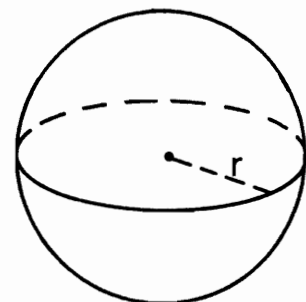
$$V = \pi r^2 h$$

$$S = 2\pi r(r+h)$$



$$V = \frac{1}{3} \pi r^2 h$$

$$S = \pi r(r+s)$$



$$V = \frac{4}{3} \pi r^3$$

$$S = 4\pi r^2$$

- ① Find the volume of a cylinder if  $r = 4$  cm,  $h = 10$  cm.  
(R)  $502.4$  cm<sup>3</sup> (S)  $516.4$  cm<sup>3</sup>
- ② Find the surface area of a cylinder if  $r = 4$  cm,  $h = 10$  cm.  
(I)  $351.68$  cm<sup>2</sup> (A)  $349.58$  cm<sup>2</sup>
- ③ Find the volume of a cone if  $r = 6$  cm,  $h = 8$  cm.  
(T)  $310.54$  cm<sup>3</sup> (E)  $301.44$  cm<sup>3</sup>
- ④ Find the surface area of a cone if  $r = 6$  cm,  $h = 8$  cm,  $s = 10$  cm.  
(S)  $301.44$  cm<sup>2</sup> (D)  $290.44$  cm<sup>2</sup>
- ⑤ Find the volume of a sphere if  $r = 6$  mm.  
(H)  $904.32$  mm<sup>3</sup> (L)  $912.42$  mm<sup>3</sup>
- ⑥ Find the surface area of a sphere if  $r = 6$  mm.  
(P)  $412.26$  mm<sup>2</sup> (F)  $452.16$  mm<sup>2</sup>
- ⑦ Find the volume of a cylinder if  $r = 1.5$  m,  $h = 4$  m.  
(T)  $29.16$  m<sup>3</sup> (N)  $28.26$  m<sup>3</sup>
- ⑧ Find the surface area of a cylinder if  $r = 1.5$  m,  $h = 4$  m.  
(G)  $50.21$  m<sup>2</sup> (B)  $51.81$  m<sup>2</sup>
- ⑨ Find the volume of a cone if  $r = 0.5$  dm,  $h = 1.2$  dm.  
(P)  $0.415$  dm<sup>3</sup> (M)  $0.314$  dm<sup>3</sup>
- ⑩ Find the surface area of a cone if  $r = 0.5$  dm,  $h = 1.2$  dm,  $s = 1.3$  dm.  
(K)  $2.826$  dm<sup>2</sup> (D)  $2.906$  dm<sup>2</sup>
- ⑪ Find the volume of a sphere that has a diameter of 40 km.  
(W)  $30,463\frac{1}{3}$  km<sup>3</sup> (C)  $33,493\frac{1}{3}$  km<sup>3</sup>
- ⑫ Find the surface area of a sphere that has a diameter of 40 km.  
(O)  $5024$  km<sup>2</sup> (A)  $5048$  km<sup>2</sup>

|    |   |   |    |    |   |   |   |    |    |   |   |   |   |    |   |   |   |    |    |   |   |   |    |   |   |   |
|----|---|---|----|----|---|---|---|----|----|---|---|---|---|----|---|---|---|----|----|---|---|---|----|---|---|---|
| 11 | 5 | 2 | 11 | 10 | 3 | 7 | 4 | 11 | 12 | 9 | 3 | 6 | 1 | 12 | 9 | 8 | 1 | 12 | 10 | 3 | 7 | 5 | 12 | 9 | 3 | 4 |
|----|---|---|----|----|---|---|---|----|----|---|---|---|---|----|---|---|---|----|----|---|---|---|----|---|---|---|

