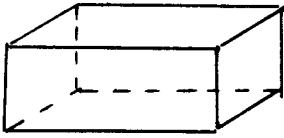
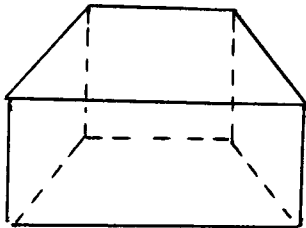


1. Find the SURFACE AREA and VOLUME of a right rectangular prism with length 12, width 5 and height 6.

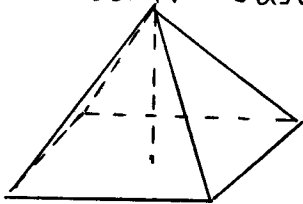


2. Find the SURFACE AREA and VOLUME of a right trapezoidal prism with base edges 10, 12, 10, 28 and height 20.

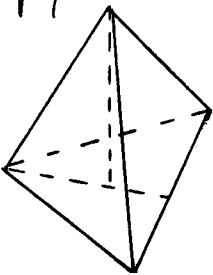


3. The volume of a right cylinder is  $192\pi$ . If the height is 12, find the SURFACE AREA.

4. Find the SURFACE AREA and VOLUME of a square pyramid with base edges 6 and lateral edge 15.



5. Find the SURFACE AREA and VOLUME of a regular triangular pyramid with base edges 6 and slant height 9.



6. Find the SURFACE AREA and VOLUME of a right cone with radius 8 and slant height 17.

7. Find the AREA and VOLUME of a sphere with radius 20.

8. Find the VOLUME of a sphere with area  $196\pi$ .

9. Complete the chart for similar solids:

|    | Similarity Ratio | Area Ratios | Volume Ratio |
|----|------------------|-------------|--------------|
| a. | 2:3              |             |              |
| b. |                  | 49:64       |              |
| c. |                  |             | 27:216       |

★ ANSWERS ★

1.  $SA = 324$   
 $V = 360$

5.  $SA = 81 + 9\sqrt{3}$   
 $V = 9\sqrt{26}$

8.  $V = \frac{1372}{3}\pi$

2.  $SA = 1440$   
 $V = 2400$

6.  $SA = 200\pi$   
 $V = 320\pi$

9a) 4:9, 8:27

b) 7:8, 343:512

c) 1:2, 1:4

3.  $128\pi$

7.  $A = 1600\pi$   
 $V = \frac{32,000}{3}\pi$

4.  $SA = 72\sqrt{6} + 36$   
 $V = 36\sqrt{23}$