

Honors Geometry Chapter 12 Review

Know all your formulas for LA, TA and Volume.

*Know how to do a problem like 29 & 30 on p.479.

*The chapter test on p.519 is good to study.

Sample problems:

Find the volume and surface area of 1-6.

1. Cylinder with height 5 cm, radius 2 cm.
2. Triangular prism with height 10 in. and sides 6, 8, and 10 in.
3. Square based pyramid with height 4 cm and sides 3 cm.
4. Regular hexagonal prism with height 12 m and base edge 6 m.
5. Sphere with radius 5 in.
6. Cone with height 12 and radius 3.
7. A sphere has a volume of $300\pi \text{ cm}^3$. What is the radius?
8. A cone has a height of 12 m and a volume of $400\pi \text{ m}^3$. Find the slant height.
9. The volumes of two similar rectangular solids are 1500 cm^3 and 800 cm^3 . What is the ratio of their surface areas?

Answers:

1. $TA = 28\pi$, $V = 20\pi$
2. $TA = 288$, $V = 240$
3. $TA = 34.63$, $V = 12$
4. $TA = 108\sqrt{3} + 432$ or 619.06 , $V = 648\sqrt{3}$
5. $TA = 100\pi$, $V = 166.67\pi$
6. $TA = 46.10\pi$, $V = 36\pi$
7. $r = 6.08$
8. $l = 15.6$
9. $131.04/81.18$ or $1.1614/1$