

Questions

1. If the volume of a cube is 64, and for a rectangular prism, its length is equivalent to the length of the cube, its width is two times the length of the cube, and its height is four times the length of the cube, what is its area?
 2. A sphere and a cylinder has the same radius, with the cylinder having a height twice of that of its radius. The diameter of the sphere is $\frac{3}{2}$, what is the cylinder's volume?
 3. A triangular prism, a pyramid, and a triangular pyramid with identical base area and height are placed on top of each other. The base and the length are the same and the empty space formed by drawing the smallest possible rectangular prism while still containing the three shapes is 9. What is the length or the height of the three shapes?
 4. A cylinder and a cone has the same volume and height. By how many times is the square of the radius of the cone bigger than the square of the radius of the cylinder?

Volume

Answers and Scores

1. 128
 2. $\frac{27\pi}{32}$
 3. 3
 4. 3 times

#	Points	Score
1	1	
2	1	
3	1	
4	1	
Σ	4	

Notes