

Each pair is similar. Use the given information to find the scale factor of the left vs right figure.

4)

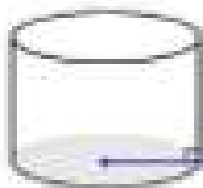


SA: 128 in^2



SA: 8 in^2

5)

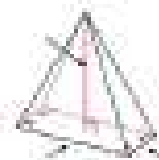


Vol: 1750 yd^3



Vol: 378 yd^3

6)



Vol: 1500 ft^3



Vol: 96 ft^3

6. Two prisms have a scale factor of 1:4. What is the ratio of their surface areas?
7. Two pyramids have a scale factor of 2:7. What is the ratio of their volumes?
8. Two spheres have radii of 5 and 9. What is the ratio of their volumes?
9. The **surface area** of two similar cones is in a ratio of 64:121. What is the scale factor?
10. The volume of two hemispheres is in a ratio of 125:1728. What is the scale factor?

11. A cone has a volume of 15π and is similar to another larger cone. If the scale factor is 5:9, what is the volume of the larger cone?
12. A cube has sides of length x and is enlarged so that the sides are $4x$. How does the volume change?
13. The ratio of the volumes of two similar pyramids is 8:27. What is the ratio of their total surface areas?
14. The ratio of the volumes of two tetrahedrons is 1000:1. The smaller tetrahedron has a side of length 6 cm. What is the side length of the larger tetrahedron?