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

4) SA: 128 in²  
5) Vol: 1750 yd³  
6) Vol: 1500 ft³
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 $15\pi$ 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?