

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

4)



SA:  $128 \text{ in}^2$



SA:  $8 \text{ in}^2$

5)



Vol:  $1750 \text{ yd}^3$



Vol:  $378 \text{ yd}^3$

6)



Vol:  $1500 \text{ ft}^3$



Vol:  $96 \text{ ft}^3$

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  $15\pi$  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?