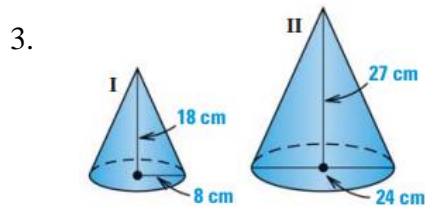
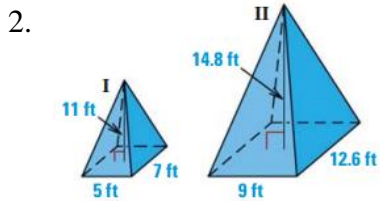


1. Fill in the chart (make sure ratios are simplified!!)

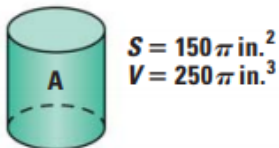
| Ratio of perimeter/corresponding lengths (scale factor) | Ratio of Areas (surface area) | Ratio of Volumes |
|---|-------------------------------|------------------|
| 7:9 | | |
| | | 64:343 |
| | | $64\pi:1000\pi$ |
| | 25:9 | |
| | 36:144 | |

Tell whether the pair of right solids are similar.

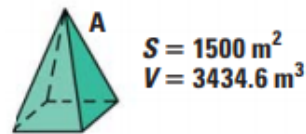


Solid A (shown) is similar to Solid B (not shown) with the given scale factor of A to B. Find the surface area and volume of Solid B.


4. Scale factor of 1 : 2



5. Scale factor of 3 : 1

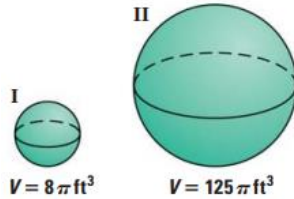


6. The scale factor of two similar solids is 1:4. The volume of the smaller Solid A is 500π . Describe and correct the error in writing an equation to find volume of the larger Solid B.

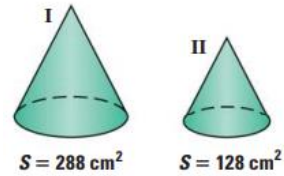
$$\frac{500\pi}{\text{Volume of B}} = \frac{1^2}{4^2}$$


Solid I is similar to Solid II. Find the scale factor of Solid I to Solid II

7.

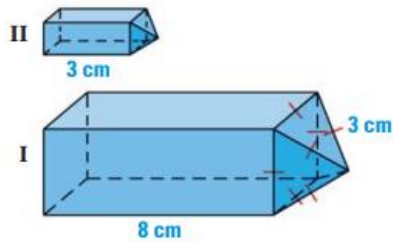


8.



9. The volumes of two similar cones are $8\pi \text{ ft}^3$ and $27\pi \text{ ft}^3$. What is the ratio of the lateral area of the cones?

10. Solid I is similar to Solid II. Find the surface area and volume of Solid II.



11. Two similar punch bowls have a scale factor of 3:4. The amount of lemonade to be added is proportional to the volume. How much lemonade does the smaller bowl require if the larger bowl requires 256 fluid ounces?