

Name _____
Mr. Schlansky

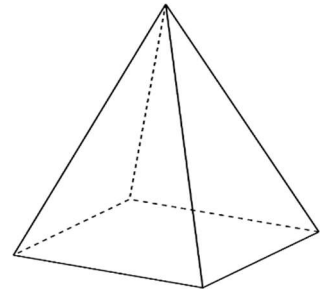
Date _____
Algebra I

Calculating Volume Practice

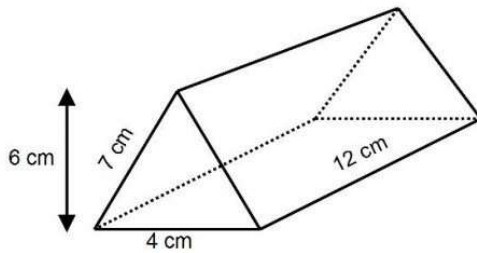
1. A cylinder has a diameter of 10 inches and a height of 2.3 inches. What is the volume of this cylinder, to the *nearest tenth of a cubic inch*?
2. What is the volume of a rectangular prism whose length is 4 cm, width is 6 cm, and height is 5 cm?
3. What is the volume of a cube if each side of the cube measures 8 in?
4. What is the volume of a cylinder whose height is 12 inches and whose diameter is 20 inches in terms of π ?
5. Find the volume of a sphere that has a diameter of 12 in in terms of π .

6. Find the volume of a cone with a slant height of 25 in and a diameter of 14 in rounded to the nearest hundredth.

7. A regular pyramid has a square base with an edge length of 6 and a slant height of 5. Find its volume.



8. A pentagonal prism has an area of 14 square centimeters and a height of 12 centimeters. Explain why the pentagonal prism has the same volume as the triangular prism shown below.



9. Find the volume of the object below if the diameter is 18.2 meters. Round your answer to the nearest cubic meter.

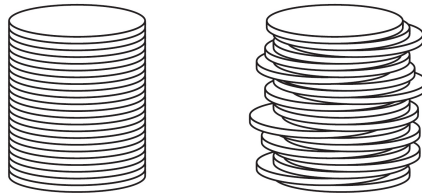


10. Find the volume of a pyramid with a base measuring 4 feet by 3 feet and a height of 12 feet.

11. Find the volume of a cone with a height of 4 cm and a radius of 3 cm rounded to the nearest hundredth.

12. Find the volume of a cone with a height of 8 feet and a diameter of 10 feet in terms of π .

13. Two stacks of 23 quarters each are shown below. One stack forms a cylinder but the other stack does not form a cylinder.



Use Cavalieri's principle to explain why the volumes of these two stacks of quarters are equal.