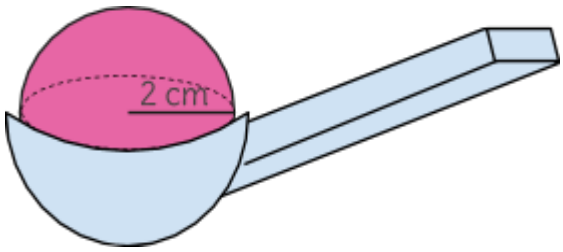
LearnZillion

Model solutions to real world problems involving the volume of a sphere by using the relationship to the volume of a cone, Practice Set A

Name:

Date:

1. A spherical scoop of ice cream has a radius of 3 cm. What is the v am?

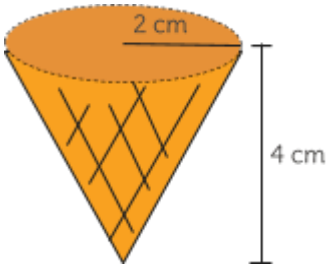


$$V = \frac{4}{3}\pi \cdot r^3$$

$$V = \frac{4}{3}\_\_\_\_\_ \cdot (\_\_\_\_\_)^3$$

**Round to the nearest tenth and don't forget units!* $V =$ _____

2. Determine the volume of the ice cream cone.



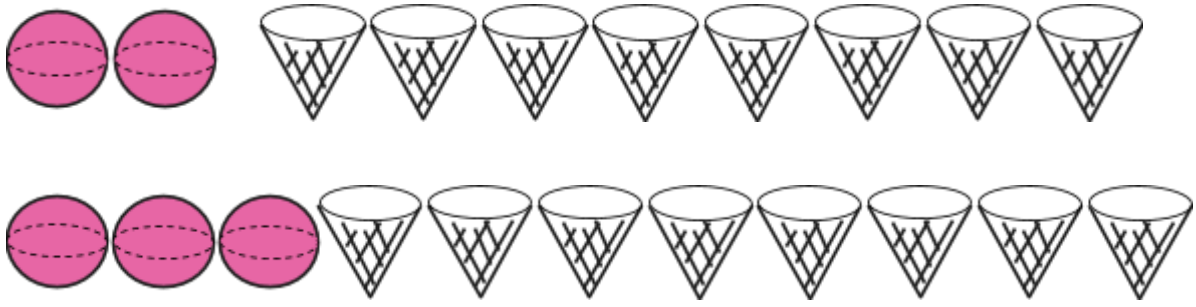
$$V = \frac{1}{3}\pi r^2 h$$

$$V = \frac{1}{3}\_\_\_\_\_ \cdot (\_\_\_\_\_)^2 \cdot \_\_\_\_\_$$

$V =$ _____

3. Shade in the number of cones that the amount of ice cream in each problem would fill. *Assume the radius is the same for the spheres of ice cream as well as the cones and the height of the cones is twice the radius.*

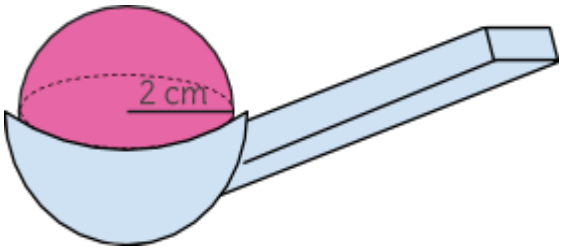
a.



b.

Model solutions to real world problems involving the volume of a sphere by using the relationship to the volume of a cone, Practice Set A Answer Key

1. A spherical scoop of ice cream has a radius of 3 cm. What is the v am?

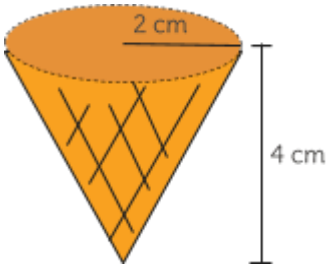


$$V = \frac{4}{3}\pi \cdot r^3$$

$$V = \frac{4}{3}\_3.14\_\cdot(\_\_2\_\_)^3$$

**Round to the nearest tenth and don't forget units!* $V =$ __33.5 cm³____

2. Determine the volume of the ice cream cone.



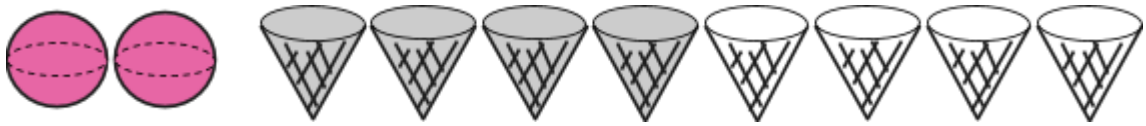
$$V = \frac{1}{3}\pi r^2 h$$

$$V = \frac{1}{3}\_3.14\_\cdot(\_\_2\_\_)^2\cdot\_\_4\_\_$$

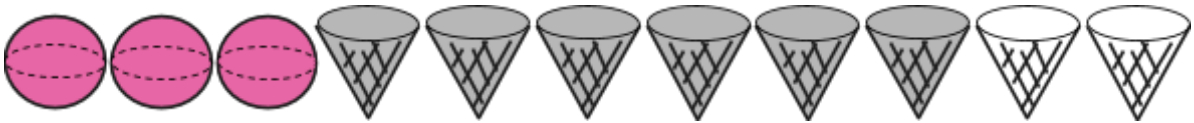
$V =$ _____16.75 cm³_____

3. Shade in the number of cones that the amount of ice cream in each problem would fill. *Assume the radius is the same for the spheres of ice cream as well as the cones and the height of the cones is twice the radius.*

a.



4 cones are shaded



b.

6 cones are shaded