

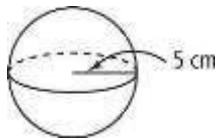
Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## Practice

### HW-55 Surface Areas and Volumes of Spheres

1. Find the surface area of the sphere with the given diameter 8 ft. Leave your answer in terms of  $\pi$ .

2. Find the surface area of the sphere. Leave each answer in terms of  $\pi$ .



Use the given circumference to find the surface area of the spherical object. Round your answer to the nearest whole number.

3. an orange with *circumference*,  $c = 50.24$  mm

4. Find the volume of the sphere. Give each answer in terms of  $\pi$  and rounded to the nearest cubic unit.



5. A sphere has the volume  $1200$  ft<sup>3</sup>. Find its surface area to the nearest whole number.

6. Find the volume in terms of pi of the sphere with surface area 90 sq. units

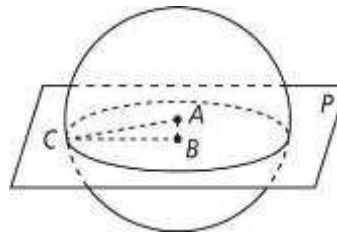
7. A spherical scoop of ice cream with a diameter of 4 cm rests on top of a cone that is 10 cm deep and has a diameter of 4 cm. If all of the ice cream into the cone, what percent of the cone will be filled?



sugar melts

8. Point  $A$  is the center of the sphere. Point  $C$  is on the surface of the sphere. Point  $B$  is the center of the circle that plane  $P$  and includes point  $C$ . The radius of the sphere is 12 mm.  $AB = 5$  mm.

What is the volume of the sphere to the nearest cubic mm?



surface lies in circle is

9. Find the radius of a sphere such that the ratio of the surface area in square feet to the volume in cubic feet is 2 : 5.

