

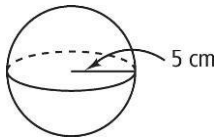
Practice

11-6

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 π .

2. Find the surface area of the sphere. Leave each answer in terms of π .



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 π and rounded to the nearest cubic unit.



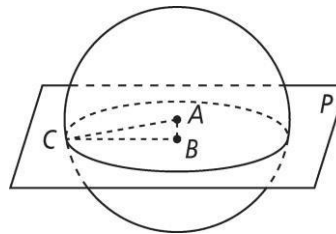
5. A sphere has the volume 1200 ft³. Find its surface area to the nearest whole number.

6. Find the volume in terms of π 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 sugar cone that is 10 cm deep and has a diameter of 4 cm. If all of the ice cream melts into the cone, what percent of the cone will be filled?



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 lies in plane P and includes point C . The radius of the circle is 12 mm. $AB = 5$ mm. What is the volume of the sphere to the nearest cubic mm?



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.