

14.2 Assignment

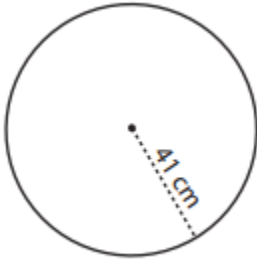
Volume & Area

Name: _____

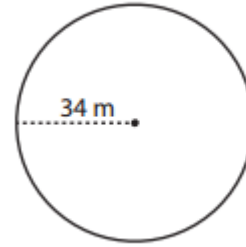
Date: _____ Per: _____

Find the circumference of each circle. Write your answer in terms of pi and rounded to the nearest hundredth.

1.

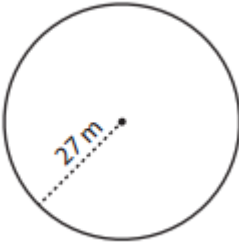


2.

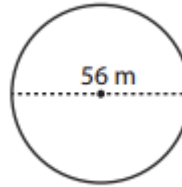


Find the area of each circle. Write your answer in terms of pi and rounded to the nearest hundredth.

3.



4.

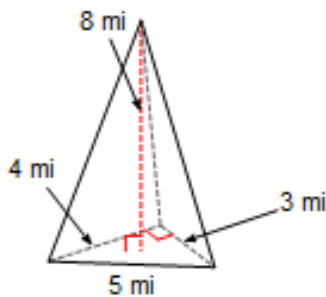


5. A round dining room table has a wood top with a circumference of 32 feet. A woodworker is refinishing the top. He needs to find the area of the top to buy materials. What is the area of the tabletop?

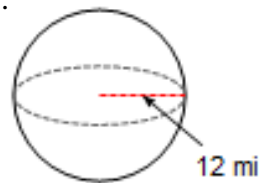
6. A carpenter is installing curved wood trim around a circular window. The window is a circle that has an area of 50 square feet. How many feet of wood trim are needed to go around the window?

Identify each figure then find the volume.

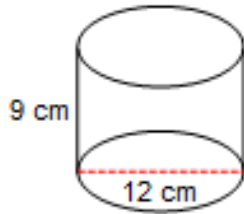
8.



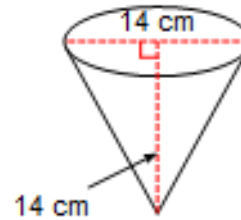
9.



10.



11.



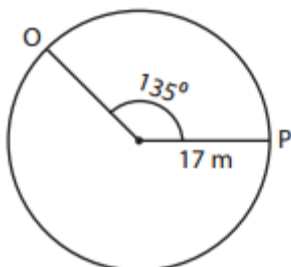
12. A gasoline fuel storage tank at an oil refinery is a cylinder with a radius of 20 meters and a height of 10 meters. How many cubic meters of gasoline will the tank hold?

13. In July 2012, an ice cream company in England set a new world record for the largest ice cream cone ever made. The total height was 13 feet including the ice cream on top. The cone itself was about 9 feet tall and had a diameter of about 3.5 feet. What is the volume of the cone?

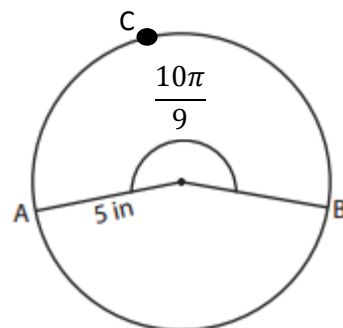
14. A pyramid in Giza has a square base with side lengths of 230 meters. Its height is 146.5 meters. What is its volume?

15. A hamster ball has a diameter of 8 inches. What is the volume of the ball?

16. Find the length of arc OP.

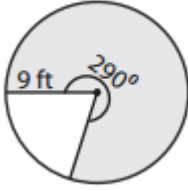


17. Find the length of arc ACB.

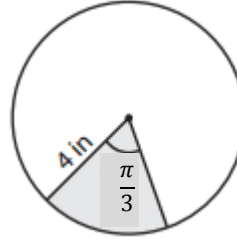


Find the area of the shaded region. Round answers to two decimal places.

18.



19.

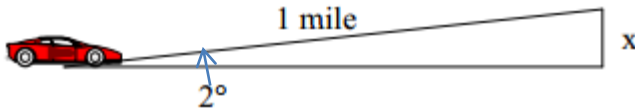


20. A large pizza has a diameter of 12 inches and is cut into 8 equal pieces. Find the area of 2 pieces, rounded to the nearest hundredth.

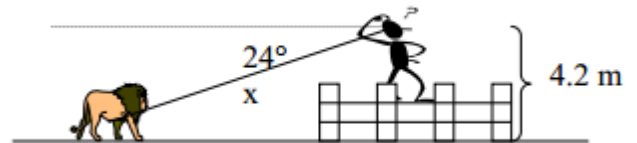
21. Convert 36° to radians.

22. Convert $\frac{7\pi}{8}$ to degrees.

23. A car is traveling up a slight grade with an angle of elevation of 2° . After traveling 1 mile, what is the vertical change in feet? (1 mile = 5,280 ft)



24. From the top of a fence a person spots a lion on the ground at an angle of depression of 24° . If the man on the fence is 4.2 meters high, how far is the man from the lion?



Simplify. State whether each resulting number is rational or irrational.

25. $\frac{\sqrt{3}}{4} + \frac{1}{4}$

26. $2.5 + 7.33$

27. $\sqrt{8} \cdot \sqrt{8}$