CCGPS Analytic Geometry Y Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Circles Review #2: Arc Length and Area of Sectors, Volume of Circular Solids

**Find the indicated measure.**

 **7.** Circumference **8.** Radius





**Find the length of**  $\hat{AB}$ **.**

 **9. 10.**



Find the indicated measure using the given information.

|  |  |
| --- | --- |
| 11. Find the radius of circle R. | 12. Find the area of a circle that has a  circumference of 24π. |

Find the area of the circle in #13 & 14.

**13. 14.**

24 *cm*

Find the area of the shaded sector in #s 15 & 16.



**15. 16.**

**Find the volume of each solid.**

**17. 5. 18.**

 

19. r = 8cm 20.

6cm 8 10

r = 6

**Perform the following conversions:**

23. Convert 84° into radians. 24. Convert 8π/5 radians into degrees.

**Answer the following questions.**

25. A certain arc has a measure of $\frac{π}{5}$ radians and a radius length of 20in. Find the arc length.

26. A pizza with a 10 inch diameter is cut into 8 congruent slices. A pizza with an 8 inch diameter is cut into 6 congruent slices. Which pizza has the bigger slice? Show all work to prove your answer.

27. Sand pouring onto the ground forms a cone. If the diameter of the cone is 8in, and the height is 4in, what’s the volume of sand in the pile?

28. Find the volume of a paint can that is 8in tall and has a *diameter* of 6in.

29. Find the area of the segment of the circle. Round to the nearest hundredth:



**29.** Graph: *x*2 + *y*2 = 9 30. Graph: (*x* – 4)2 + (*y* + 3)2 = 4

31. Convert the following circle to standard form, then state the center and radius.

*x*2 – 6*x* + *y*2 + 10*y* + 8 = 0 Center \_\_\_\_\_\_\_\_\_\_, Radius \_\_\_\_\_\_\_\_\_\_\_\_

32. Fill in the blanks to reflect what Cavalierri’s principle says about the image below.



“*The stacks of coins have the same volume*

*because the cross sections are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and they*

*have the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”*

33. Sally has a ball with a radius of 3in, and another with a radius of 9in. How many times more volume does the larger ball have than the smaller one?

Find the area of the shaded regions

21. 22. 8

5

**4**

 8