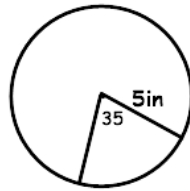


11.5

Name _____

1. Find the arc length of the arc.

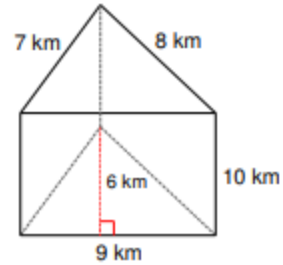
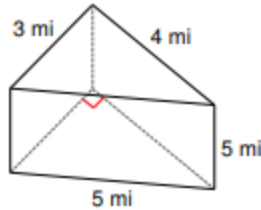
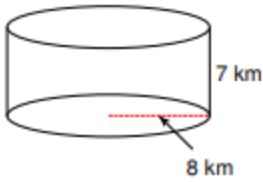


2. Find the area of the sector.

3. Find the equation of the circle. Then name the radius and the center of the circle.

$$X^2 - 10x + y^2 - 22 = 0$$

4. Find the volume. Write the formula and show work.



5. Write $\sin 65^\circ$ in terms of cosine. 6. Write $\cos 44^\circ$ in terms of sine. 7. Convert 500 degrees to radians.

8. The volume of a cylinder is 3000 square feet. If the cylinder has a radius of 9.3 feet what is the height of the cylinder?

9. The volume of a rectangular prism is 560 feet cubed. If the length and width are 8 feet and 7 feet, find the height.

9. Two solids are similar. Their scale factor is 3 to 5. Find the following.

a. The volume of the large figure if the volume of the small figure is 4608π inches cubed.

b. The volume of the small figure if the volume of the large figure is 40.5 inches cubed.

10. What is Cavalieri's Principle?

- a. A volume formula that works only with cylinder, cones, pyramids and regular prisms.
- b. A method that can find the volume of any shape when the height is unknown.
- c. A statement that any two objects with the same cross-sectional area and height have the same volume.
- d. A statement that any two objects of equal volume must have the same height.

11. There is a sailor at the top of a lighthouse. The lighthouse is 310 feet tall. There is a man in a boat looking up at the lighthouse at an angle of elevation of 40 degrees. How far is the boat from the lighthouse?

12. A block of wood is 5 cm on each side and has a mass of 27 grams. What is the density of the block?

13. A sample of iron has dimensions of 2 cm x 3 cm x 2 cm. IF the mass of this rectangular-shaped object is 94 grams, what is the density of the iron?

14. If triangle A has coordinates A(3,-4), B(-5,8) and C(2,7) find the COMPOSITION OF transformations for a reflection with the line $y=x$, a rotation of 90 degrees and then a translation $(x-2, y+1)$

<u>Original points</u>	<u>Reflection $y=x$</u>	<u>Rotation 90 degrees</u>	<u>Translation $(x-2, y+1)$</u>
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15. A kite has angle measures of $7x$, 65, 85 and 105 degrees. Find the value of x AND the measure of the missing angle.

16. A trapezoid has a midsegment that measures 12.5 inches. One of the bases is $3x+1$, and the other base is 15 inches. Find the value of x and the missing base.

17. How does doubling the side lengths of a triangle affect its perimeter? DRAW PICTURES!

