## VOLUME OF CONES, CYLINDERS, \& SPHERES

$\mathbf{N} \boldsymbol{\sim} \mathrm{F}$ (VOLUMEN DE CONOS, CILINDROS Y ESFERAS)

CONES (CONOS)


## CYLINDERS (CILINDROS)



Find the volume of the cone. (encuentra el volumen del cono)

$$
\begin{gathered}
V=\frac{\pi r^{2} h}{3} \\
V=\frac{\pi\left(11^{2}\right)(22)}{3} \\
V=2787.6 m i^{3}
\end{gathered}
$$

Unit of measurement must carry an exponent of 3 (third power).
La unidad de medida debe tener un exponente de 3 (tercera potencia).

Find the volume of the cylinder. (encuentra el volumen del cilindro)

$$
\begin{gathered}
V=\pi r^{2} h \\
V=\pi\left(6^{2}\right)(6) \\
V=678.6 \mathrm{~km}^{3}
\end{gathered}
$$

Unit of measurement must carry an exponent of 3 (third power).
La unidad de medida debe tener un exponente de 3 (tercera potencia).

Find the volume of the spheree. (encuentra el volumen del esferas)

$$
\begin{gathered}
V=\frac{4 \pi r^{3}}{3} \\
V=\frac{4 \pi\left(7^{3}\right)}{3} \\
V=1436.8 \mathrm{~km}^{3}
\end{gathered}
$$

Unit of measurement must carry an exponent of 3 (third power).
La unidad de medida debe tener un exponente de 3 (tercera potencia).

Volumes of Cones, Cylinders, and Spheres - I ndependent Practice Worksheet

1. A cylindrical well has a radius of 10 feet and a height of 15 feet. What volume of water will it take to fill in the well?
2. The water pipe has a radius of 5 cm and a height of 7 cm . What volume of water does it take to fill the pipe?
3. Many villages have water tanks that they use for farming. Jeff's village has a cylinder shaped water tank that has a 4 m radius and a 9 m height. Find the volume of the cylinder.
4. For Anya's birthday her father gave out colorful birthday hats that were cone shaped. Anya was very happy that day. The opening of the bottom of the hat was 3 cm and the height of the cone was 7 cm . Anya fills her hat with candy. What is the approximate volume of candy?
5. The base of a cone shaped glass is 12 inches and it is 18 inches tall. You fill the glass with soda pop to the top of the glass. What is the volume of soda pop?
6. A guest house is in the shape of a cone. The house is 7.5 feet high, 22 feet long. Find the volume of air that occupies the house, assuming it is empty.
7. A baseball has a 45 cm diameter. What is the volume of the contents of the ball?
8. A small sphere shaped jar has a 8 cm radius. What is the volume of the bowl?
9. Find the volume of a sphere whose $r$ is 20 inches?
10. The tennis ball has a radius of 12 cm . Calculate the volume of the tennis ball.

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