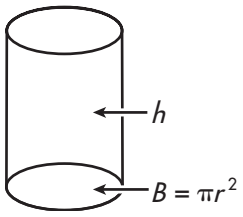
NAME _____

Lesson 5.10 Volume: Cylinders

Volume is the amount of space a three-dimensional figure occupies. You can calculate the **volume of a cylinder** by multiplying the area of the base by the height (Bh).



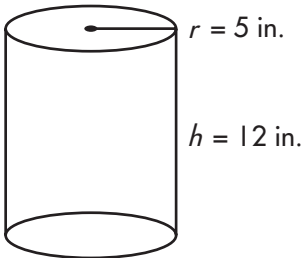
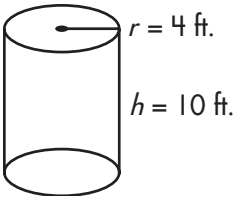
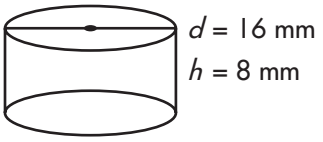
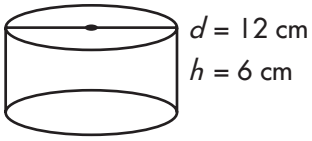
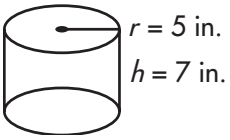
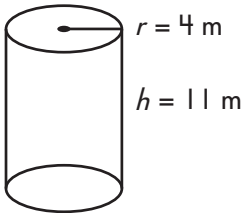
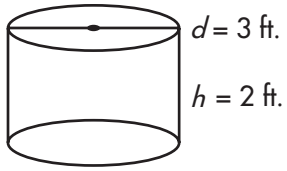
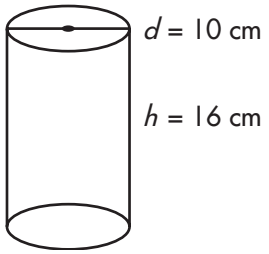
The area of the base is the area of the circle, πr^2, so volume can be found using the formula: $V = \pi r^2 h$

The volume is expressed in **cubic units**, or **units^3**.

If $r = 3$ cm and $h = 10$ cm, what is the volume? Use 3.14 for π.

$V = \pi r^2 h$ $V = \pi(3^2 \times 10)$ $V = \pi \times 90$ $V = 282.6$ cm^3

Find the volume of each cylinder. Use 3.14 for π. Remember that $d = 2r$. Round answers to the nearest hundredth.

	a	b	c
1.			
	$V =$ _____ in.^{3}	$V =$ _____ ft.^{3}	$V =$ _____ mm^3
2.			
	$V =$ _____ cm^3	$V =$ _____ in.^{3}	$V =$ _____ m^3
3.			
	$V =$ _____ m^3	$V =$ _____ ft.^{3}	$V =$ _____ cm^3