

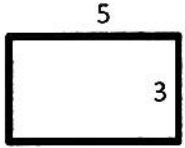
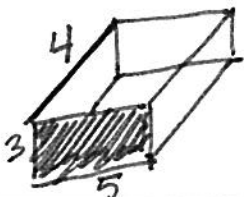
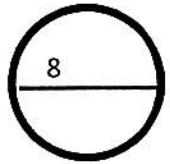
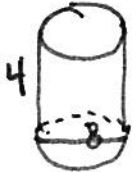
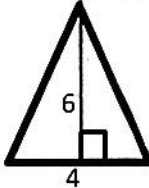
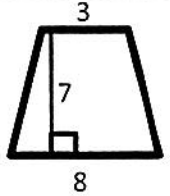
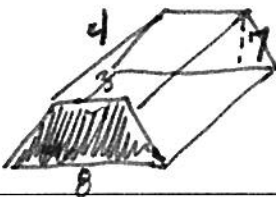
$B = \text{Area of base}$

$$B = l \cdot w$$

Name _____ Date _____

Class _____

Volume of Prisms, Pyramids, Cylinders, Cones, and Spheres

2D Shape	Area of 2D shape	Draw: Prism with 2D Base (h=4)	Volume of Prism	Draw: Pyramid with 2D Base (h=4)	Volume of Pyramid
	$A = l \cdot w$ $A = 5 \cdot 3$ $A = 15$		$V = l \cdot w \cdot h$ $V = Bh$ $V = 15(4) = 60$		$V = \frac{1}{3} Bh$ $V = \frac{1}{3}(15)4$ $V = 20$
	$A = \pi r^2$ $A = \pi 4^2$ $A = 16\pi$		$V = Bh$ $V = \pi r^2 h$ $V = 16\pi(4) = 64\pi$		$V = \frac{1}{3} Bh$ $V = \frac{1}{3}(16\pi)4$ $V = \frac{64}{3}\pi$
	$A = \frac{1}{2}bh$ $A = \frac{1}{2}(4)(6)$ $A = 12$		$V = Bh$ $V = \frac{bh}{2}(h)$ $V = 12(4) = 48$		$V = \frac{1}{3} Bh$ $V = \frac{1}{3}(12)(4)$ $V = 16$
	$A = \frac{1}{2}(b_1 + b_2)h$ $A = 38.5$		$V = Bh$ $V = 38.5(4)$ $V = 154$		$V = \frac{1}{3} Bh$ $V = \frac{1}{3}(38.5)(4)$ $V = 51.\bar{3}$

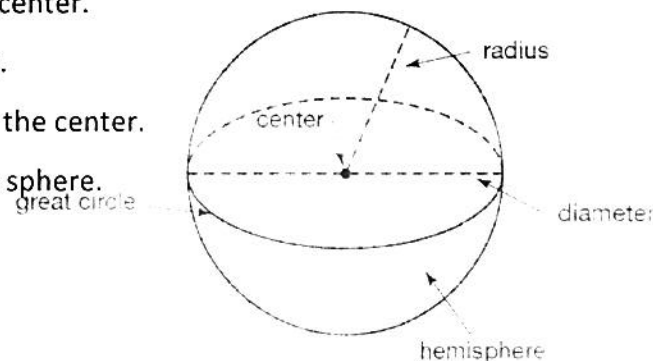
A **sphere** is the set of all points in three dimensions that are equidistant from a given point called the center.

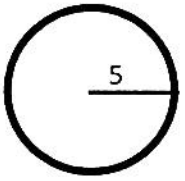
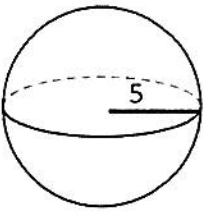
The **radius** of a sphere is a line segment drawn from the center of the sphere to a point on the sphere.

The **diameter** of a sphere is a line segment drawn between two points on the sphere passing through the center.

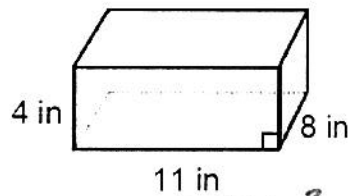
A **great circle of a sphere** is a cross section of a sphere when a plane passes through the center of the sphere.

A **hemisphere** is half of a sphere bounded by a great circle.



Circle	Radius/Area of Circle	Circumference of Circle	Sphere	Circumference of Sphere	Radius/Volume of Sphere
	$A = \pi r^2$ $A = 25\pi$	$C = 2\pi r$ $C = \pi d$ $C = 10\pi$		$C = \pi d$ $C = 10\pi$	$V = \frac{4}{3}\pi r^3$ $V = \frac{4}{3}\pi 5^3$ $V = 125 \cdot \frac{4}{3} \cdot \pi$ $V = \frac{500}{3}\pi$

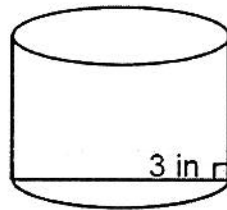
$V = Bh$
 $V = 88(4) = 352$



Volume: 352 in³

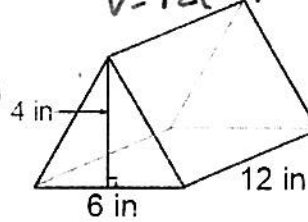
Volume Practice

$V = Bh$
 $V = \pi r^2 h$
 $4 \text{ in } V = 2.25\pi(4)$



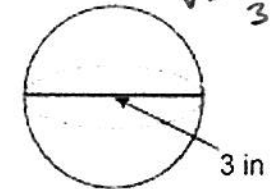
Volume: 9π or 28.27 in³

$V = Bh$
 $V = 12(12)$



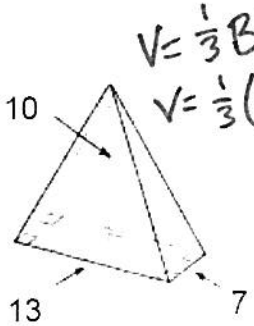
Volume: 144 in³

$V = \frac{4}{3}\pi r^3$
 $V = \frac{4}{3}\pi (1.5)^3$



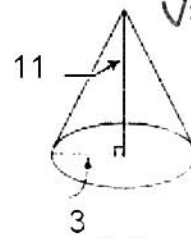
Volume: 4.5π or 14.14 in³

$V = \frac{1}{3}Bh$
 $V = \frac{1}{3}(91)(10)$



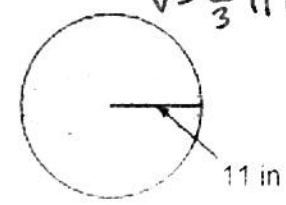
Volume: 303.33 in³

$V = \frac{1}{3}Bh$
 $V = \frac{1}{3}(9\pi)(11)$



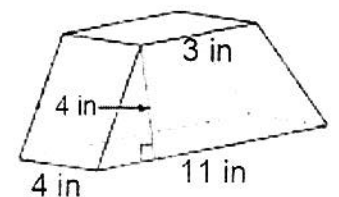
Volume: 33π or 103.67 in³

$V = \frac{4}{3}\pi r^3$
 $V = \frac{4}{3}\pi (11)^3$



Volume: 1774.66π or 5575.28 in³

$V = Bh$
 $V = 28(4)$



Volume: 112 in³