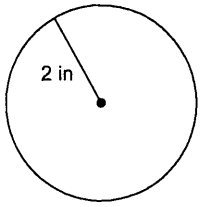
Geometry Name_____

Area and Volume Review

Date_____ Period____

Find the area of each. Leave answers in terms of pi.

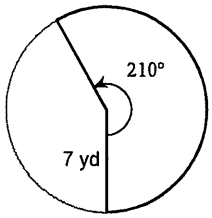
1)



2) diameter = 24 ft

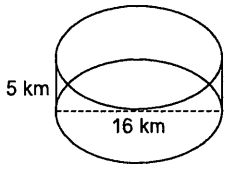
Find the area of each sector. Leave answers in terms of pi.

3)

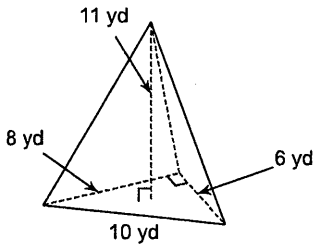


Find the volume of each figure. Round your answers to the nearest hundredth, if necessary. Leave your answers in terms of π for answers that contain π.

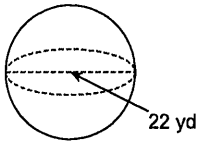
4)



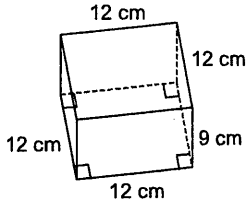
5)



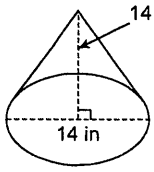
6)



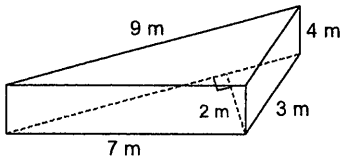
7)



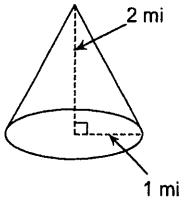
8)



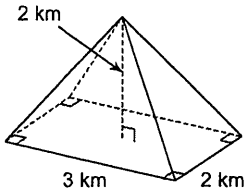
9)



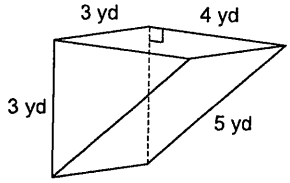
10)



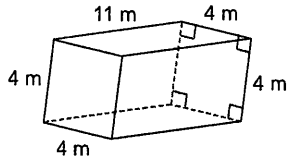
11)



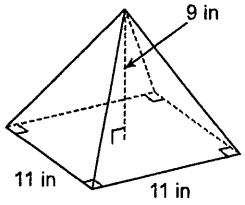
12)



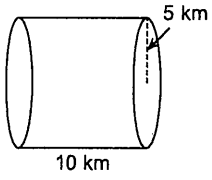
13)



14)



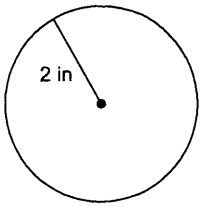
15)



Geometry Name Key

Area and Volume Review Date _____ Period ____

Find the area of each. Leave answers in terms of pi.

1) 

$A = \pi(r^2)$

$A = \pi(2)^2$

$A = 4\pi \text{ in}^2$

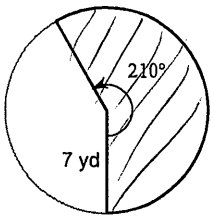
2) diameter = 24 ft

$r = 12 \text{ ft}$

$A = \pi(12)^2$

$A = 144\pi \text{ ft}^2$

Find the area of each sector. Leave answers in terms of pi.

3) 

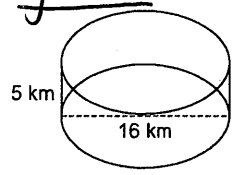
$\frac{S}{\pi r^2} = \frac{210}{360}$

$\frac{S}{\pi(7)^2} = \frac{7}{12}$

$12S = 343\pi$

$S = \frac{343}{12}\pi \text{ yd}^2$

Find the volume of each figure. Round your answers to the nearest hundredth, if necessary. Leave your answers in terms of π for answers that contain π.

4) cylinder 

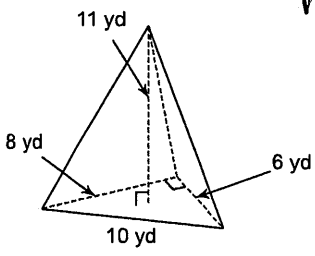
$V = \pi r^2 h$

$V = \pi(8)^2 h$

$r = 8$

$V = \pi(8)^2 5$

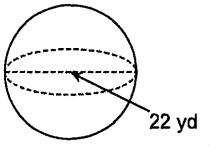
$V = 320\pi \text{ km}^3$

5) pyramid 

$V = \frac{1}{3} B \cdot h$

$= \frac{1}{3} \cdot \frac{1}{2}(6)(8) \cdot 11$

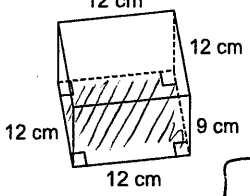
$= 88 \text{ yd}^3$

6) sphere 

$r = 11$

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

$V = \frac{5324}{3}\pi \text{ yd}^3$

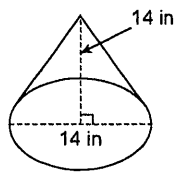
7) prism 

$V = B \cdot h$

$V = (12)(12) \cdot 9$

$V = 1296 \text{ cm}^3$

Cone

8) 

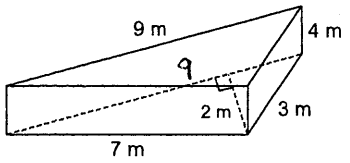
$V = \frac{1}{3}\pi r^2 h$

$V = \frac{1}{3}\pi (7)^2 (14)$

$r = 7$

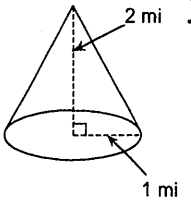
$V = \frac{686}{3}\pi \text{ in}^3$

prism $V = B \cdot h$

9) 

$V = \frac{1}{2}(9)(2) \cdot 4$

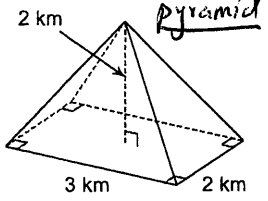
$V = 36 \text{ m}^3$

10) 

cone $V = \frac{1}{3}\pi r^2 h$

$V = \frac{1}{3}\pi (1)^2 (2)$

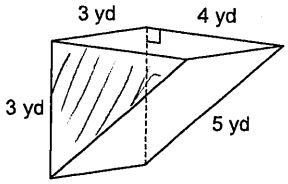
$V = \frac{2}{3}\pi \text{ mi}^3$

11) 

pyramid $V = \frac{1}{3}Bh$

$V = \frac{1}{3}(3)(2) \cdot 2$

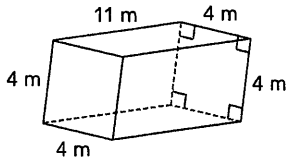
$V = 4 \text{ km}^3$

12) 

prism $V = B \cdot h$

$V = \frac{1}{2}(3)(4) \cdot 3$

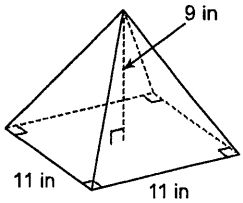
$V = 18 \text{ yd}^3$

13) 

prism $V = B \cdot h$

$V = (4)(4) \cdot 11$

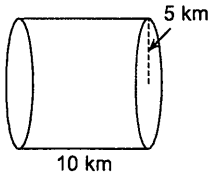
$V = 176 \text{ m}^3$

14) 

pyramid $V = \frac{1}{3}Bh$

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

$V = 363 \text{ in}^3$

15) 

cylinder $V = \pi r^2 h$

$V = \pi (5)^2 (10)$

$V = 250\pi \text{ km}^3$

