Unit 9 Study Guide

Name: \_\_\_\_\_

<ul> <li>1A. Which of the following is not a cross section of the prism?</li> <li>a. Triangle</li> <li>b. Circle</li> <li>c. Rectangle</li> <li>d. Parallelogram</li> </ul>	<ul> <li>1B. Which of the following is not a cross section of the pyramid?</li> <li>a. Rectangle</li> <li>b. Triangle</li> <li>c. Trapezoid</li> <li>d. Ellipse</li> </ul>	1C. Which of the following is not a cross section of the cylinder? a. Circle b. Rectangle c. Triangle d. Ellipse		
2A. The shaded circle is a great circle. What is the radius of the sphere? 18 in	2B. The shaded circle is a great circle. What is the diameter of the sphere? 20 yd	2C. The shaded circle is a great circle. What is the diameter of the sphere? 10 m		
3A. What is the approximate volume of the sphere shown? Write the answer in terms of pi. <b>r = 9 cubic feet</b>	3B. What is the approximate volume of the sphere shown? Write the answer in terms of pi. r = 14 cubic inches	3C. What is the approximate volume of the sphere shown? Write the answer in terms of pi. r = 11 cubic meters		
4A. The volume of a cone is 151 cubic meters and the height of a cone is 11 meters. What is the radius of the cone to the nearest whole number?	4B. The volume of a cone is 200 cubic inches and the height of a cone is 15 inches. What is the radius of the cone to the nearest whole number?	4C. The volume of a cone is 184 cubic feet and the height of a cone is 8 feet. What is the radius of the cone to the nearest whole number?		
5A. The cylinder has a radius of 2 inches. What is the volume of the cylinder? Write the answer in terms of pi.	5B. The cylinder has a radius of 7 inches. What is the volume of the cylinder? Write the answer in terms of pi.	5C. The cylinder has a radius of 9 inches. What is the volume of the cylinder? Write the answer in terms of pi.		

6A. A square pyramid has a volume of 48 cubic feet and a height of 9 ft. What is the approximate length of each side of the base to the nearest whole number?	6B. A square pyramid has a volume of 256 cubic centimeters and a height of 12 cm. What is the approximate length of each side of the base to the nearest whole number?	6C. A square pyramid has a volume of 60 cubic inches and a height of 20 in. What is the approximate length of each side of the base to the nearest whole number?		
7A. The cylinder has a radius of 3 cm, a slant height of 10 cm, and a height of 8 cm. What is the volume of the cylinder? Write the answer in terms of pi.	7B. The cylinder has a radius of 2 cm, a slant height of 16 cm, and a height of 13 cm. What is the volume of the cylinder? Write the answer in terms of pi.	7C. The cylinder has a radius of 4 cm, a slant height of 17 cm, and a height of 10 cm. What is the volume of the cylinder? Write the answer in terms of pi. r = 4 10 17		
8A. What is the volume of the prism? 12 37	8B. What is the volume of the prism?	8C. What is the volume of the prism? 38 $25$		
9A. What is the volume of the pyramid? h = 11 in 5 in	9B. What is the volume of the pyramid? h = 7  cm 3  cm	9C. What is the volume of the pyramid? h = 15  m 10 m		
10A. What will the new volume be if all of the dimensions are doubled?	10B. What will the new volume be if all of the dimensions are tripled? 10 21	10C. What will the new volume be if all of the dimensions are doubled? 13 26		

Answers:							
1A. B	1B. D	1C. C	2A. 9 in	2B. 40 yd	2C. 10m		
3A. 972π ft	3B. 3658.7 <i>π</i> in	3C. 1774.7π m	4A. 2 m	4B. 2 in	4C. 3 ft		
5A. $60\pi$ in	5B. 392 <i>π</i> in	5C. $891\pi$ in	6A. 4 ft	6B. 8 cm	6C. 3 in		
7A. $72\pi$ cm	7B. 52π cm	7C. 160π cm	8A. 252	8B. 396	8C. 80		
9A. 91.6 in	9B. 21 cm	9C. 500 m	10A. 325,600	10B. 45,360	10C. 48,672		