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Unit 9 Study Guide

1A. Which of the following is not a cross section of the prism?

a. Triangle
b. Circle
c. Rectangle
d. Parallelogram

2A. The shaded circle is a great circle. What is the radius of the sphere?


3A. What is the approximate volume of the sphere shown? Write the answer in terms of pi.


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?


5A. The cylinder has a radius of 2 inches. What is the volume of the cylinder? Write the answer in terms of pi.


1B. Which of the following is not a cross section of the pyramid?

a. Rectangle
b. Triangle
c. Trapezoid
d. Ellipse

2B. The shaded circle is a great circle. What is the diameter of the sphere?


3B. What is the approximate volume of the sphere shown? Write the answer in terms of pi.


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?


5B. The cylinder has a radius of 7 inches. What is the volume of the cylinder? Write the answer in terms of pi.


1 C . Which of the following is not a cross section of the cylinder?

a. Circle
b. Rectangle
c. Triangle
d. Ellipse

2C. The shaded circle is a great circle. What is the diameter of the sphere?

10 m


3C. What is the approximate volume of the sphere shown? Write the answer in terms of pi.


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?


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? |
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| 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. |
| 8 A . What is the volume of the prism? | 8B. What is the volume of the prism? | 8C. What is the volume of the prism? |
| 9A. What is the volume of the pyramid? | 9B. What is the volume of the pyramid? | 9C. What is the volume of the pyramid? |
| 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? | 10C. What will the new volume be if all of the dimensions are doubled? |


| 1A. B | 1B. D | 1C. C | 2A. 9 in | 2B. 40 yd | 2C. 10 m |
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| 3A. $972 \pi \mathrm{ft}$ | 3B. $3658.7 \pi$ in | 3C. $1774.7 \pi \mathrm{~m}$ | 4 A. 2 m | 4B. 2 in | 4C. 3 ft |
| 5 A. $60 \pi$ in | 5B. $392 \pi$ in | 5 C. $891 \pi$ in | 6 A. 4 ft | 6 B. 8 cm | 6C. 3 in |
| 7A. $72 \pi \mathrm{~cm}$ | 7B. $52 \pi \mathrm{~cm}$ | 7C. $160 \pi \mathrm{~cm}$ | 8 A. 252 | 8B. 396 | 8C. 80 |
| 9A. 91.6 in | 9B. 21 cm | 9C. 500 m | 10A. 325,600 | 10B. 45,360 | 10C. 48,672 |

