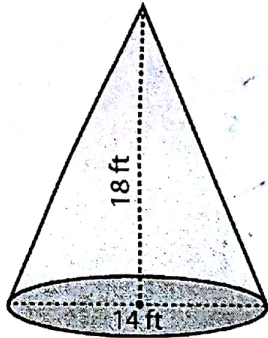


Volume - Mixed Shapes

ES1

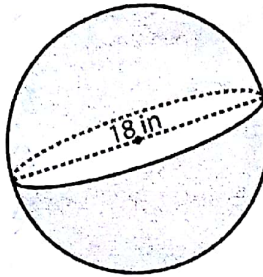
Find the exact volume of each shape.

1)



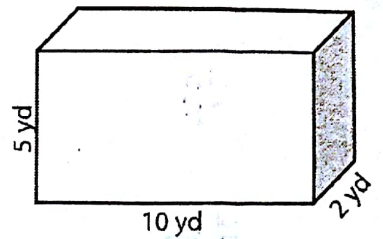
Volume = $294\pi \text{ ft}^3$

2)



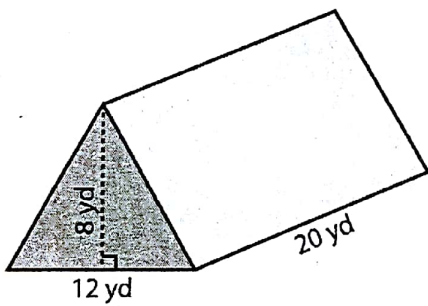
Volume = $972\pi \text{ in}^3$

3)



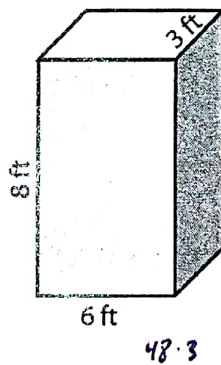
Volume = 100 yd^3

4)



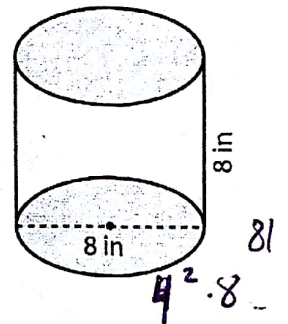
Volume = 960 yd^3

5)



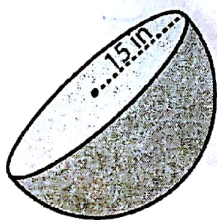
Volume = 144 ft^3

6)



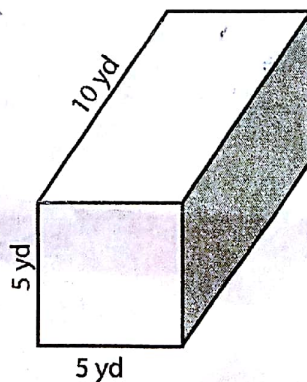
Volume = $128\pi \text{ in}^3$

7)



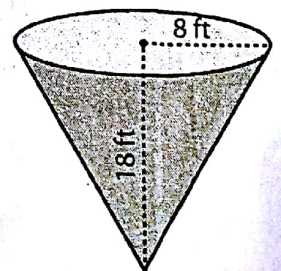
Volume = $2250\pi \text{ in}^3$

8)



Volume = 250 yd^3

9)



Volume = $384\pi \text{ ft}^3$

Lesson 8.6

Answer the following questions using $\pi \approx 3.14$. Round your answer to the nearest hundredth where necessary.

1. Find the height of a cylinder with a volume of 30 in^3 and a radius of 1 in.

30
9.55 in.

or $\frac{30}{\pi}$ in

2. Find the height of a cylinder with a volume of 100 cm^3 and a radius of 2 cm.

3. Find the height of a cylinder with a volume of $720\pi \text{ ft}^3$ and a radius of 6 ft.

20 ft

4. Find the height of a cylinder with a volume of $1215\pi \text{ mm}^3$ and a radius of 9 mm.

5. Find the radius of a cylinder with a volume of 950 in^3 and a height of 10 in.

5.5 in

6. Find the radius of a cylinder with a volume of 208 cm^3 and a height of 4 cm.

7. Find the radius of a cylinder with a volume of $108\pi \text{ ft}^3$ and a height of 12 ft.

3 ft

8. Find the radius of a cylinder with a volume of 686 mm^3 and a height of 14 mm.

9. Find the height of a cone with a volume of 150 in^3 and a radius of 10 in.

$\frac{450}{100} \pi$ 4.5
 $\frac{1}{3} \pi 100 \cdot h$
1.43 in

10. Find the height of a cone with a volume of 21 ft^3 and a radius of 4 ft.

11. Find the radius of a cone with a volume of 175 cm^3 and a height of 21 cm.

$525 = \pi r^2 \cdot 21$
~~126 cm~~ 2.82 cm

12. Find the radius of a cone with a volume of $196\pi \text{ mm}^3$ and a height of 12 mm.

13. Find the radius of a sphere with volume $\approx 113.04 \text{ in}^3$.

$\approx 3 \text{ cm}$

14. Find the radius of a sphere with volume $\approx 904.32 \text{ cm}^3$.

15. Find the radius of a sphere with volume $\approx 3052.08 \text{ m}^3$.

$\approx 9 \text{ cm}$

16. Find the radius of a sphere with volume $\approx 4.186 \text{ ft}^3$.