

WORKSHEET 12.6

$$\text{Surface Area} = 4\pi r^2$$

$$\text{Volume} = \frac{4}{3}\pi r^3$$

$$\textcircled{1} \quad SA = 4\pi r^2$$

$$SA = 4(3.14)(10^2)$$

$$SA = 1256 \text{ cm}^2$$

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

$$V = \frac{4}{3}(3.14)(10^3)$$

$$V = 4186.7$$

$$V = 4187 \text{ cm}^3$$

$$\textcircled{2} \quad SA = 4\pi r^2$$

$$SA = 4(3.14)(6^2)$$

$$SA = 452.16$$

$$SA = 452.17$$

$$V = \frac{4}{3}(3.14)(6^3)$$

$$V = 904.32$$

$$V = 904.32$$

$$\textcircled{3} \quad SA = 4\pi r^2$$

$$SA = 4(3.14)(3.5^2)$$

$$SA = 153.86$$

$$SA = 154 \text{ m}^2$$

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

$$V = \frac{4}{3}(3.14)(3.5^3)$$

$$V = 179.5$$

$$V = 180 \text{ m}^3$$

$$\textcircled{4} \quad SA = 4\pi r^2$$

$$SA = 4(3.14)(4.5^2)$$

$$SA = 254.34$$

$$SA = 254 \text{ yd}^2$$

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

$$V = \frac{4}{3}(3.14)(4.5^3)$$

$$V = 381.5$$

$$V = 382 \text{ yd}^3$$

$$\textcircled{5} \quad SA = 4\pi r^2$$

$$SA = 4(3.14)(6.6^2)$$

$$SA = 547.1$$

$$SA = 547 \text{ cm}^2$$

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

$$V = \frac{4}{3}(3.14)(6.6^3)$$

$$V = 1203.6$$

$$V = 1204 \text{ cm}^3$$

$$\textcircled{6} \quad SA = 4\pi r^2$$

$$SA = 4(3.14)(3.9^2)$$

$$SA = 191.04$$

$$SA = 191 \text{ ft}^2$$

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

$$V = \frac{4}{3}(3.14)(3.9^3)$$

$$V = 248.35$$

$$V = 248 \text{ ft}^3$$

$$\textcircled{7} SA = 4\pi r^2$$

$$SA = 4(3.14)(9^2)$$

$$SA = 1017.36$$

$$SA = 1017 \text{ ft}^2$$

$$\textcircled{8} V = \frac{4}{3}\pi r^3$$

$$V = \frac{4}{3}(3.14)(7^3)$$

$$V = 1436.02$$

$$V = 1436 \text{ in}^3$$

$$\textcircled{9} SA = 4\pi r^2$$

$$\textcircled{1} SA = 4(3.14)(9^2)$$

$$SA = 1017 \text{ mm}^2$$

$$\textcircled{2} SA = 4(3.14)(9.5^2)$$

$$SA = 1134 \text{ mm}^2$$

$$\textcircled{3} SA = 4(3.14)(10.5^2)$$

$$SA = 1385 \text{ mm}^2$$

$$\textcircled{4} SA = 4(3.14)(12^2)$$

$$SA = 1809 \text{ mm}^2$$

1017

1134

1385

1809

$$4 \overline{) 5345} = 1336.25 = 1336 \text{ mm}^2$$