

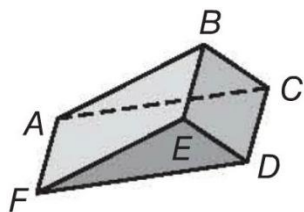
Name \_\_\_\_\_ Date \_\_\_\_\_ Pd \_\_\_\_\_

# Chapter 12 Bringing It All Together

## (Three-Dimensional Figures, Volume, & Surface Area)

Fill in the spaces provided to identify the figure as well as name the bases, faces, edges, and vertices.

1) **Figure:** \_\_\_\_\_



**Bases:** \_\_\_\_\_

**Faces:** \_\_\_\_\_

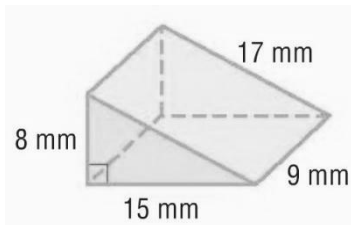
**Edges:** \_\_\_\_\_

**Vertices:** \_\_\_\_\_

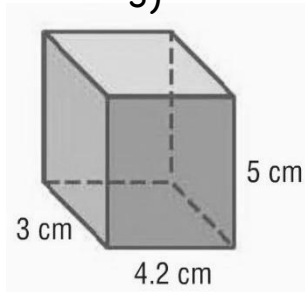
Using the space provided, find the volume of each figure.

Round to the nearest tenth. Show your formula and work.  $\pi = 3.14$

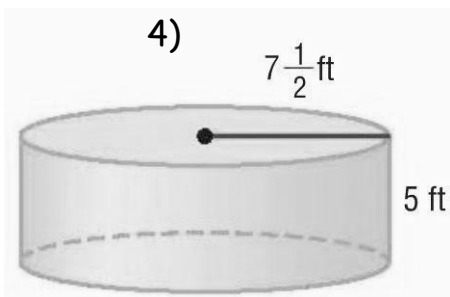
2)



3)



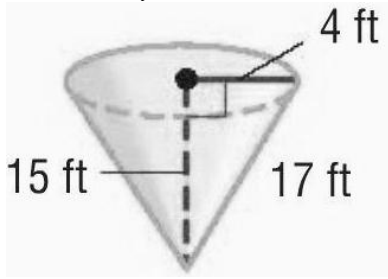
4)



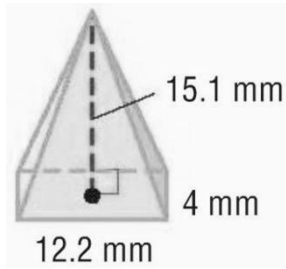
Name \_\_\_\_\_ Date \_\_\_\_\_ Pd \_\_\_\_\_

Using the space provided, find the volume of each figure.  
Round to the nearest tenth. Show your formula and work.  $\pi = 3.14$

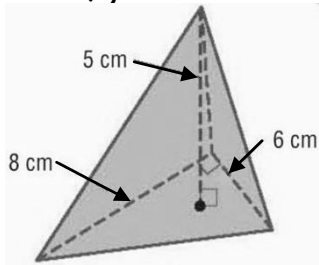
5)



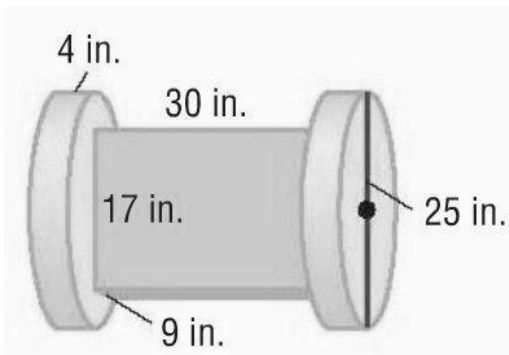
6)



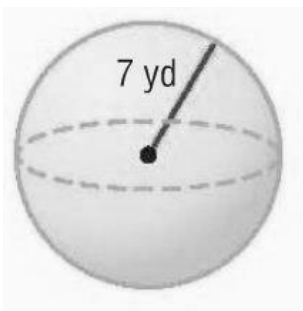
7)



8)



9)

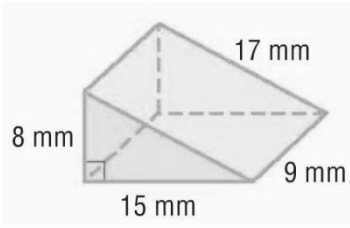


**OVER** →

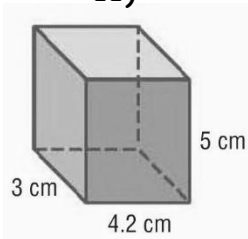
Name \_\_\_\_\_ Date \_\_\_\_\_ Pd \_\_\_\_\_

Using the space provided, find the lateral area & surface area of each figure. Round to the nearest tenth. Show your formula and work.  $\pi = 3.14$

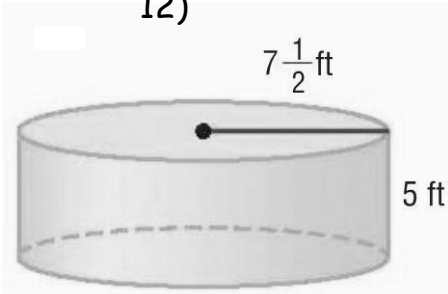
10)



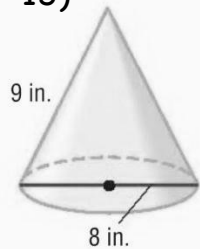
11)



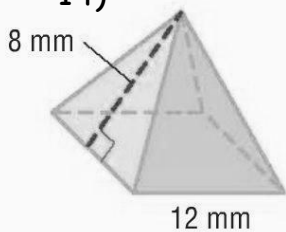
12)



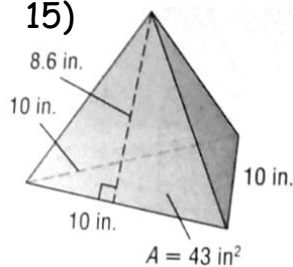
13)



14)



15)



**FINALLY  
DONE**

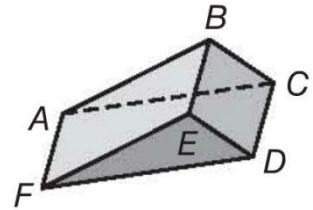


# Chapter 12 Bringing It All Together **Answer Key**

(Three-Dimensional Figures, Volume, & Surface Area)

Fill in the spaces provided to identify the figure as well as name the bases, faces, edges, and vertices.

1) Figure: **Triangular Prism**



Bases: **DEF & ABC**

Faces: **DEF, ABC, ACDF, ABEF, BCDE**

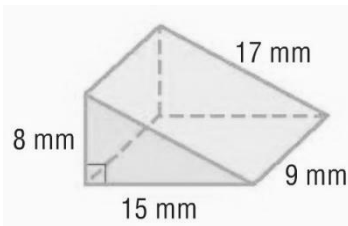
Edges:  **$\overline{AB}$ ,  $\overline{AC}$ ,  $\overline{AF}$ ,  $\overline{BC}$ ,  $\overline{BE}$ ,  $\overline{CD}$ ,  $\overline{DE}$ ,  $\overline{DF}$ ,  $\overline{EF}$**

Vertices: **A, B, C, D, E, F**

Using the space provided, find the volume of each figure.

Round to the nearest tenth. Show your formula and work.  $\pi = 3.14$

2)

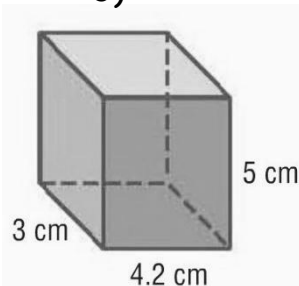


$$V = \left(\frac{1}{2}bh\right)h$$

$$V = \left(\frac{1}{2} \times 15 \times 8\right) 9$$

$$V = 540.0 \text{ mm}^3$$

3)

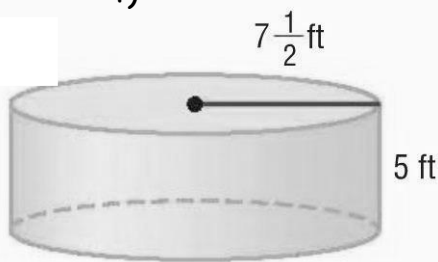


$$V = lwh$$

$$V = 3 \times 4.2 \times 5$$

$$V = 63.0 \text{ cm}^3$$

4)



$$V = \pi r^2 h$$

$$V = 3.14 \times 7.5^2 \times 5$$

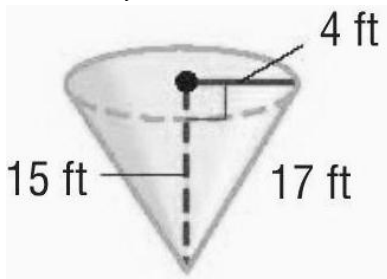
$$V = 883.1 \text{ ft}^3$$

Name \_\_\_\_\_ Date \_\_\_\_\_ Pd \_\_\_\_\_

Using the space provided, find the volume of each figure.

Round to the nearest tenth. Show your formula and work.  $\pi = 3.14$

5)

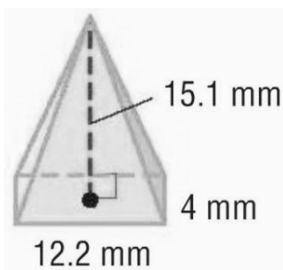


$$V = \frac{1}{3} \pi r^2 h$$

$$V = \frac{1}{3} \times 3.14 \times 4^2 \times 15$$

$$V = 251.2 \text{ ft}^3$$

6)

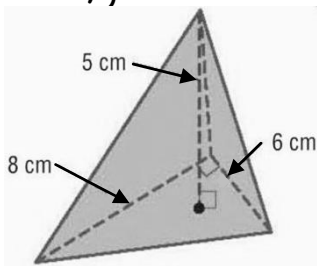


$$V = \frac{1}{3} lwh$$

$$V = \frac{1}{3} \times 12.2 \times 4 \times 15.1$$

$$V = 245.6 \text{ mm}^3$$

7)

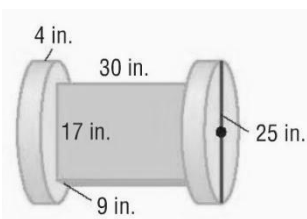


$$V = \frac{1}{3} \left( \frac{1}{2} bh \right) h$$

$$V = \frac{1}{3} \left( \frac{1}{2} \times 8 \times 6 \right) 5$$

$$V = 40.0 \text{ cm}^3$$

8)

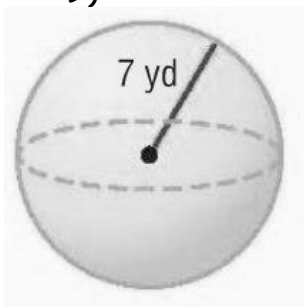


$$V = 2(\pi r^2 h) + lwh$$

$$V = 2(3.14 \times 12.5^2 \times 4) + 30 \times 17 \times 9$$

$$V = 8,515.0 \text{ in}^3$$

9)



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

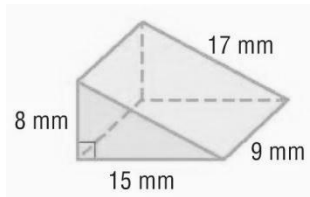
$$V = \frac{4}{3} \times 3.14 \times 7^3$$

$$V = 1,436.0 \text{ yd}^3$$

Name \_\_\_\_\_ Date \_\_\_\_\_ Pd \_\_\_\_\_

Using the space provided, find the lateral area & surface area of each figure. Round to the nearest tenth. Show your formula and work.  $\pi = 3.14$

10)



$$L = Ph$$

$$L = 40 \times 9$$

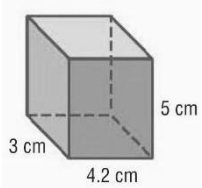
$$L = 360.0 \text{ mm}^2$$

$$SA = L + 2\left(\frac{1}{2}bh\right)$$

$$SA = 360 + 2\left(\frac{1}{2} \times 15 \times 8\right)$$

$$SA = 480.0 \text{ mm}^2$$

11)



$$L = Ph$$

$$L = 18.4 \times 3$$

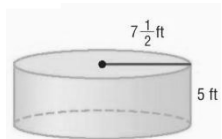
$$L = 55.2 \text{ cm}^2$$

$$SA = L + 2lw$$

$$SA = 55.2 + 2(5 \times 4.2)$$

$$SA = 97.2 \text{ cm}^2$$

12)



$$L = 2\pi rh$$

$$L = 2 \times 3.14 \times 7.5 \times 5$$

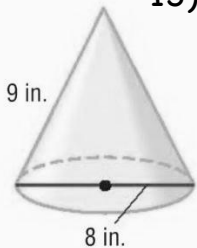
$$L = 235.5 \text{ ft}^2$$

$$SA = L + 2\pi r^2$$

$$SA = 235.5 + 2 \times 3.14 \times 7.5^2$$

$$SA = 588.8 \text{ ft}^2$$

13)



$$L = \pi rl$$

$$L = 3.14 \times 4 \times 9$$

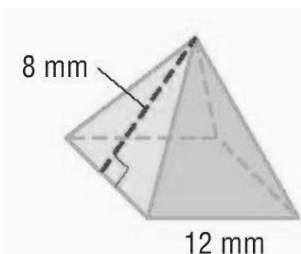
$$L = 113.0 \text{ in}^2$$

$$SA = L + \pi r^2$$

$$SA = 113.0 + 3.14 \times 4^2$$

$$SA = 163.2 \text{ in}^2$$

14)



$$L = \frac{1}{2}Pl$$

$$L = \frac{1}{2} \times 48 \times 8$$

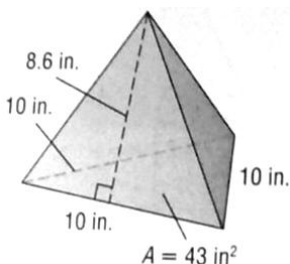
$$L = 192.0 \text{ mm}^2$$

$$SA = L + lw$$

$$SA = 192 + 12 \times 12$$

$$SA = 336.0 \text{ mm}^2$$

15)



$$L = \frac{1}{2}Pl$$

$$L = \frac{1}{2} \times 30 \times 8.6$$

$$L = 129.0 \text{ in}^2$$

$$SA = L + B$$

$$SA = 129 + 43$$

$$SA = 172.0 \text{ in}^2$$

FINALLY DONE

