PRACTICE: LESSON 8.1 – **VOLUME** w/ BASIC PROBLEMS   Name: _____

Learning Goal: I can solve basic problems involving the **volume** of a cylinder, cone, and sphere. **Meta de Aprendizaje**: *Puedo resolver problemas básicos relacionados con el **volumen** de un cilindro, cono y esfera.*	Language Goal: I can discuss with a partner how to calculate the **Area of the Base, B**, and write an explanation. **Lenguaje Objetivo**: *Puedo discutir con un compañero cómo calcular el **Área de la Base, B**, y escribir una explicación.*

1. What is **volume**?   **VOLUME** is _____ .
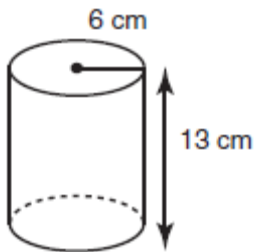
2. What is **B**?   **B** is _____ .

3. What is **h**?   **h** is _____ .

Step 1: Write the **Volume** Formula in a T-Chart
Step 2: Replace "**B**", if needed, w/ the correct **Area** Formula
Step 3: Replace the variables with your numbers
      (***Be sure to use the radius, not the diameter!***)
Step 4: Use your calculator to find the **Volume**

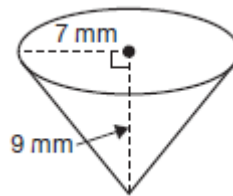**DIRECTIONS**: Use the 4 Steps to calculate the **volume** of the following shapes.

4. What is the **volume** of the cylinder?	5. What is the **volume** of the cone?
6 cm 13 cm Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____	7 mm 9 mm Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____
6. What is the **volume** of the sphere?	7. What is the **volume** of the hemisphere?
4 m Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____	6.8 cm Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____
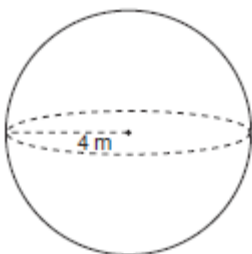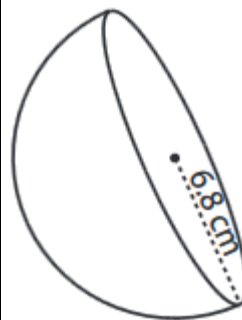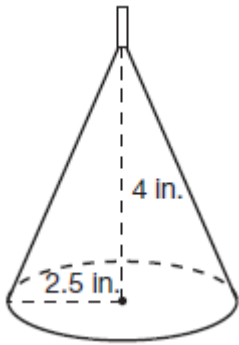
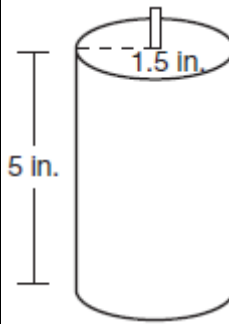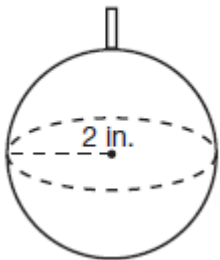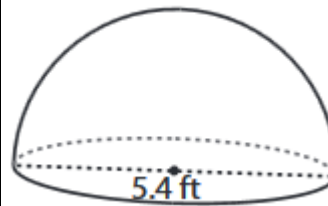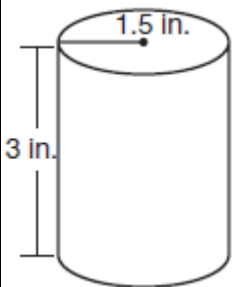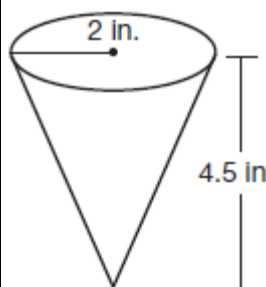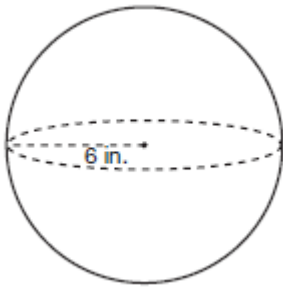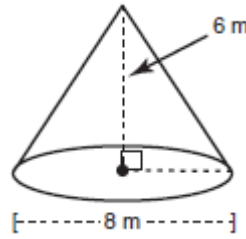|	
8. How many **cubic inches** is the candle? 4 in. 2.5 in. Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____	9. How many **cubic inches** is the candle? 1.5 in. 5 in. Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____
10. How many **cubic inches** is the candle? 2 in. Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____	11. How many **cubic feet** is the hemisphere? 5.4 ft Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____
12. How many **cubic inches** is the cylinder? 1.5 in. 3 in. Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____	13. How many **cubic inches** is the cone? 2 in. 4.5 in. Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____

14. How many **cubic inches** is the sphere?	15. How many **cubic meters** is the cone?
6 in. Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____	6 m 8 m Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____
16. What is the **volume** of the cylinder?	17. What is the **volume** of the cone?
25 mm 15 mm A Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____	2 mm 5 mm Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____
18. How many **cubic meters** is the sphere?	19. How many **cubic inches** is the hemisphere?
11 m Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____	10 mm B 40 mm Step 1: $V =$ Step 2: Step 3: Step 4: ANSWER: _____
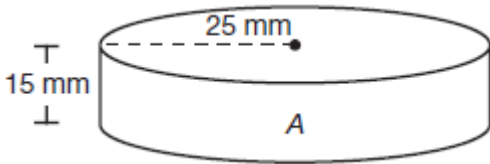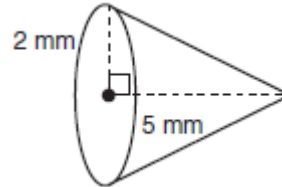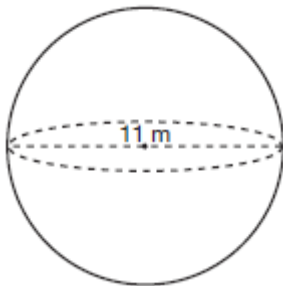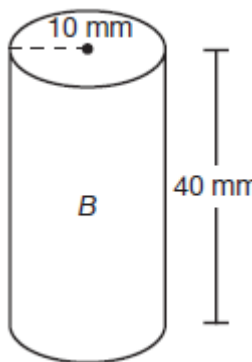
20. What is the **volume** of a *sphere* with a radius of 10 inches? Step 1: $V =$ Step 2: Step 3: Step 4: **ANSWER:** _____	21. What is the **volume** of a *cylinder* with a radius of 5 inches and a height of 10 inches? Step 1: $V =$ Step 2: Step 3: Step 4: **ANSWER:** _____
22. What is the **volume** of a *cone* with a radius of 5 inches and a height of 10 inches? Step 1: $V =$ Step 2: Step 3: Step 4: **ANSWER:** _____	23. What is the **volume** of a *hemisphere* with a radius of 10 inches? Step 1: $V =$ Step 2: Step 3: Step 4: **ANSWER:** _____
24. A **cylindrical** tube has a radius of 5 inches and a height of 12 inches. What is the **volume** of the tube? Step 1: $V =$ Step 2: Step 3: Step 4: **ANSWER:** _____	25. How many **cubic inches** of air does it take to **fill up** a soccer ball with a radius of 12 inches? Step 1: $V =$ Step 2: Step 3: Step 4: **ANSWER:** _____

26. How do you calculate **B**, the **Area of the Base**, for a cylinder or cone?

_____

_____