Lesson 4.6 ~ Volume of Cylinders
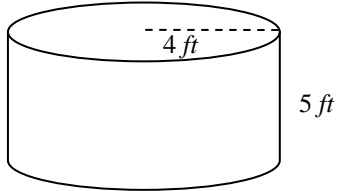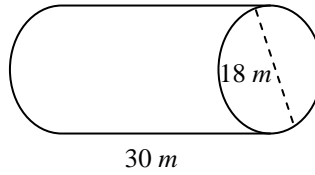
Name_____ Period_____ Date_____

Find the volume of each cylinder. Use 3.14 for π. Round answers to the nearest hundredth, if needed.
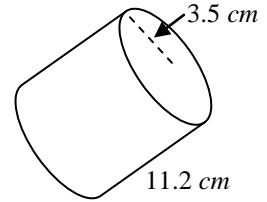
1.

4 ft

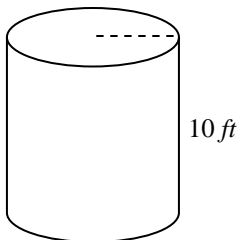5 ft

2.

18 m

30 m

3.

3.5 cm

11.2 cm

4. Sumo-Sumo Gas Company has a tanker-truck for hauling gasoline. The cylindrical tank has a diameter of 5.4 meters. The tank is 16 meters long. How many cubic meters of gas can the truck haul?

5. Rita has a circular hot tub. The hot tub has a circumference of 25.12 feet. It is 3.5 feet deep.
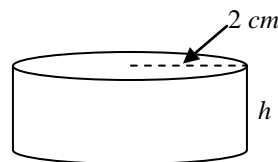
    a. Find the radius of the hot tub. Use 3.14 for π.

    b. How much water can the hot tub hold?

    c. The hot tub manual recommends filling the hot tub to 80% of its full capacity. How much water should Rita put in the hot tub in order to follow the recommendation?

Find each missing measure. Use 3.14 for π.

6. Volume = 282.6 *ft³*
    Radius ≈ _____

10 ft

7. V = 12.56 *cm³*
    Height ≈ _____

2 cm

h

8. A cylindrical bucket can hold approximately 301.44 *in³*. The height of the bucket is about 6 inches. What is the diameter of the bucket to the nearest inch?