

## **Lesson 14 Practice Problems**

diameter of base (units)	area of base (square units)	height (units)	volume (cubic units)
4		10	
6			63π
	25π	6	

1. Complete the table with all of the missing information about three different cylinders.

- 2. A cylinder has volume  $45\pi$  and radius 3. What is its height?
- 3. Three cylinders have a volume of 2826 cm<sup>3</sup>. Cylinder A has a height of 900 cm. Cylinder B has a height of 225 cm. Cylinder C has a height of 100 cm. Find the radius of each cylinder. Use 3.14 as an approximation for  $\pi$ .
- 4. A gas company's delivery truck has a cylindrical tank that is 14 feet in diameter and 40 feet long.
  - a. Sketch the tank, and mark the radius and the height.
  - b. How much gas can fit in the tank?

(From Unit 5, Lesson 13.)



5. Here is a graph that shows the water height of the ocean between September 22 and September 24, 2016 in Bodega Bay, CA.

- a. Estimate the water height at 12 p.m. on September 22.
- b. How many times was the water height 5 feet? Find two times when this happens.
- c. What was the lowest the water got during this time period? When does this occur?
- d. Does the water ever reach a height of 6 feet?

(From Unit 5, Lesson 5.)