## Lesson 14 Practice Problems

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

| diameter of base <br> (units) | area of base (square <br> units) | height <br> (units) | volume (cubic <br> units) |
| :---: | :---: | :---: | :---: |
| 4 |  | 10 |  |
| 6 |  |  | $63 \pi$ |
|  | $25 \pi$ | 6 |  |

2. A cylinder has volume $45 \pi$ and radius 3 . What is its height?
3. Three cylinders have a volume of $2826 \mathrm{~cm}^{3}$. 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?
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.)
