

Lesson 18 Practice Problems

1.
 - Sketch a cylinder.
 - Label its radius 3 and its height 10.
 - Shade in one of its bases.

2. At a farm, animals are fed bales of hay and buckets of grain. Each bale of hay is in the shape a rectangular prism. The base has side lengths 2 feet and 3 feet, and the height is 5 feet. Each bucket of grain is a cylinder with a diameter of 3 feet. The height of the bucket is 5 feet, the same as the height of the bale.
 - a. Which is larger in area, the rectangular base of the bale or the circular base of the bucket? Explain how you know.

 - b. Which is larger in volume, the bale or the bucket? Explain how you know.

3. Match each set of information about a circle with the area of that circle.

A. Circle A has a radius of 4 units.	1. 4π square units
B. Circle B has a radius of 10 units.	2. approximately 314 square units
C. Circle C has a diameter of 16 units.	3. 64π square units
D. Circle D has a circumference of 4π units.	4. 16π square units

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

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

5. A cylinder has volume 45π and radius 3. What is its height?

6. Three cylinders have a volume of 2826 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 π .