**Lab 2 for Section 6.2, 6.3, and 6.4** Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Use good notation and show appropriate work. Write solutions to application problems in* ***complete sentences***.

1. A label of 2% milk means that per weight 2. Find the volume of a cylinder    
2% of the milk is butterfat. How many with radius  inches and height 14 inches.

ounces of butterfat are in one cup of milk? Use  as the approximation for *π*.

3. Solve the following equations.

(a)  (b) 

(c) 1.7(*n* – 0.2) + 0.03*n* = 3.6*n* + 2.1(0.3*n* + 0.7) (d) 

4. Solve the following formulas for the indicated variables.

(a)  for *f* (b)  for *b*

4. Karen drives a taxi in New York. During ‘surge’ conditions, she charges $10 base rate plus $6 per minute. On Friday, during a ‘surge’ condition she earned $1920. How many hours did she drive customers during these conditions?

5. A farmer is putting up fence for his cows. He wants the fenced in area to be a rectangle with length twenty feet more than the width. If he has 600 feet of fence, what will the dimensions of the area for the cows be?

6. A car rental is $52.50 per day, which includes tax. The tax rate is 5%. How much is the rental before tax?

7. The doctor decreased Lui’s dosage by 15%. If Lui was taking 68 mg of the medication after the change, how many milligrams of medication was she taking before the change?