LESSON 5 - PRACTICE PROBLEMS

1. Name the place value of the "8" digit in each of the following numbers.

    a. 183.234

    b. 234.183

    c. 30.816

    d. 0.00854

    e. 1.0008

2. Write in words the name of each of the following numbers.

    a. 183.234

    b. 234.183

    c. 30.816

    d. 0.00854

    e. 1.0008

3. Round each number to the given decimal place.

    a. 156.247   to the nearest hundred

    b. 156.247   to the nearest hundredth

    c. 23.4999   to the nearest hundredth

    d. 23.4035   to the nearest thousandth

    e. 21.512   to the nearest whole number

4. Convert each decimal to a fraction or mixed number as appropriate.

    a. 0.05   b. 1.34   c. 2.006

    d. 0.125   e. 1.2

5. Convert each fraction to a decimal. Round to the hundredths place as appropriate.

a. $1\frac{1}{2}$ b. $\frac{22}{3}$ c. $\frac{105}{23}$

d. $\frac{25}{100}$ e. $\frac{3}{7}$

6. Add or subtract each of the following using your calculator. Round each result both to the *hundredths place* and to the nearest *whole number*. Be sure you round your initial computation to these places…don't take your hundredths rounding and round to the nearest whole number.

a. 301.25 + 21.456

b. 14.256 - 0.0132

c. 5 + 6.238

d. 1.256 - 0.34

e. 125.543 + 1.23

7. Multiply or divide each of the following using your calculator. Round each result both to the *hundredths place* and to the nearest *whole number*. Be sure you round your initial computation to these places…don't take your hundredths rounding and round to the nearest whole number.

a. 301.25 · 21.456

b. 14.256 ÷ 0.0132

c. 5 · 6.238

d. 0.256 ÷ 0.34

e. 125.543 · 1.23

8. Use correct order of operations for each of the following. You may use your calculator but you should show the intermediate simplification steps. Round your final result to the nearest hundredths place as appropriate.

   a. $(4.01)^2 - 2.25 \cdot 3.85$

   b. $(3.523 - 1.20)^2 + 4.0 - 2.14$

   c. $12.82 \cdot 6.238 + 3.457 - 5.02 \cdot 6.83712$

   d. $0.256 \div 0.34 \cdot 7.813 - (0.214)^2$

   e. $(2.1)^3 - (0.15 + 0.19)^2$

9. Order each of the following from largest to smallest.

   a. 0.1, 0.01, 0.11   b. 2.3, 2.33, 2.03   c. $\dfrac{1}{2}$, 0.501, 0.05

   d. $\dfrac{1}{2}, \dfrac{1}{3}, \dfrac{1}{4}$ e. $\dfrac{6}{7}, \dfrac{7}{8}, \dfrac{5}{6}$

10. Solve each of the following application problems using the 5-step process illustrated in the lesson. Leave final answers in a form appropriate for the problem. Round decimals to hundredths place as appropriate.

   a. Sarah Smartshopper receives ten cents off per gallon on gas for every $100 she spends at the grocery store during a given month. During the month of October, he spent $45.23, $102.34, $13.67, $34.56, $48.72, and $52.12. What will Sarah's gas discount be for October?

b. Wendy Watersaver just received her monthly water usage data from her local water department. For the past 6 months, her water used (in thousands of gallons) was 19.9, 25.6, 28.8, 22.5, 20.3, and 19.2. What was her average usage during this time? (Round to the nearest tenth)

c. Marty Mathwhiz is standing in line at the store with his friend Danny Doubter. Marty says that he can estimate his purchase, without using a calculator, within 50 cents of the actual amount. Danny, of course, did not believe him. Marty bought items in the amounts of $1.25, $2.04, $5.62, $8.81, $6.12, and $12.99. Marty estimated his items at $37. First of all, was he within the 50 cent limit for his estimation and second, how might he have accomplished this?

d. Henrietta Hardworker normally earns $8.50 per hour in a given 40-hour work-week. If she works overtime, she earns time and a half pay per hour. During the month of October, she worked 40 hours, 50 hours, 45 hours, and 42 hours for the four weeks. How much did she earn total for October?

e. Chris Carpenter is making a gazebo for his yard. He has a piece of wood that is 13 feet long and he needs to cut it into pieces of length 5.3 inches. How many pieces of this size can he cut from the 13 foot piece of wood?