Math 081 Computational Skills Prep Assignment #2 Name_____

DECIMAL OPERATIONS.

When adding or subtracting decimals, the decimal points must be lined up.

*******Also use the rules for signed numbers.

Example: $46.258 + 7.01 + 209.3$ would be written as

$$\begin{array}{r} 46.258 \\ 7.010 \\ +\ 209.300 \\ \hline 262.568 \end{array}$$

Example: $60 - 1.059$ would be written as

$$\begin{array}{r} 60.000 \\ -\ \ 1.059 \\ \hline 58.941 \end{array}$$

1. $95 + 5.918 + 104.7$

2. $-6.33 + -621.08$

3. $45 + -0.242$

4. $17.55 - 8.394$

5. $0.5 - 16.64$

6. $28 - (-328.5)$

When multiplying decimals use the following steps:

***Also use the rules for signed numbers.

a. You **DO NOT** need to line up the decimal points
b. Multiply the numbers together ignoring the decimal points.
c. When you're finished multiplying, go back and count the number of decimal places in both numbers.
d. Put in the decimal point so you have that many places in your answer.

Example: 34.81×7.2 *write as*

$$\begin{array}{r} 34.81 \\ \times\ \ 7.2 \\ \hline 6962 \\ +\ 243670 \\ \hline 250632 \end{array}$$

Now count the decimals places. Since there are a total of 3 for the numbers being multiplied, the answer has to have 3. The answer would be $\mathbf{250.632}$

7. 4.45×0.9

8. $-2.717 \times .38$

9. -101.2×-4.3

When dividing decimals use the following steps:

***Also use the rules for signed numbers.

Example: $43.56 \div 1.2$

a. Write the problem using the long division symbol. The second number goes on the outside. $1.2\overline{)43.56}$

b. The number on the outside needs to be a whole number, so move the decimal point to the end of the outside number. $12\overline{)43.56}$ Outside decimal moved 1 place

c. Then move the decimal point on the inside number, the same number of decimal places as you moved the outside number. $12\overline{)435.6}$ Inside decimal moved 1 place.

d. Put the decimal point in the answer directly above the decimal from the inside number.

$$12\overline{)435.6}$$

e. Now divide ignoring any decimal points.

$$\begin{array}{r} 36.3 \\ 12\overline{)435.6} \\ \underline{-36} \\ 75 \\ \underline{-72} \\ 36 \\ \underline{-36} \\ 0 \end{array}$$

10. $15.462 \div .06$

11. $-79.53 \div 3.3$

12. $-03.46 \div -.005$

Multiplication with powers of 10.

When multiplying by a power of 10 like 10, 100, 1000, etc., move the decimal point one place to the right for every 0 in the number you are multiplying by.

*******Also use the rules for signed numbers.

Example: 21.36×100 *because there are two 0's, you would move the decimal point 2 places to the right. So the answer would be* $\mathbf{2,136}$.

Example: $1000(456)$ *because there are three 0"s, you would move the decimal point three places to the right. (Because 456 is a whole number, the decimal point is after the 6) So the answer would be* $\mathbf{456,000}$.

13. 0.0575×1000

14. -32.698×10

Division with powers of 10.

When dividing by a power of 10 like 10, 100, 1000, etc., move the decimal point one place to the left for every 0 in the number you are dividing by.

*******Also use the rules for signed numbers.

Example: $21.36 \div 100$ *because there are two 0's, you would move the decimal point 2 places to the left. So the answer would be* $\mathbf{.2136}$.

Example: $\frac{456}{1000}$ *because there are three 0's, you would move the decimal point three places to the left. (Because 456 is a whole number, the decimal point is after the 6) So the answer would be* $\mathbf{0.456}$.

15. $51.34 \div 10$

16. $0.16 \div -1000$

17. $\frac{-82.07}{-100}$