Adding & Subtracting Decimals

1. Write the problem vertically, lining up the decimal points.

2. Add additional zeroes at the end, if necessary, to make the numbers have the same number of decimal places.

3. Add/subtract as if the numbers are whole numbers

4. Bring the decimal point straight down

ex: 14.2 - 7.934

$$
\begin{array}{r}
14.200 \\
-\ 7.934 \\
\hline
6.266 \\
\end{array}
$$

Multiplying Decimals

1. Write the problem vertically with the numbers lined up to the right. The decimal points do NOT need to be lined up.

2. Ignore the decimals and multiply as if the numbers are whole numbers.

3. Count the total number of decimal places in the factors and put a decimal point in the product so that it has that same number of decimal places.

ex: 6.94 x 7.8

$$
\begin{array}{r}
6.94 \\
\times\quad 7.8 \\
\hline
5552 \\
+\ 48580 \\
\hline
54132 \\
\end{array}
$$

6.94 → 2 decimal places
7.8 → 1 decimal place
3 decimal places

54.132

Dividing Decimals

1. Write the dividend under the long division symbol and the divisor to the left of it.

2. Move the decimal point in the divisor after the number to turn it into a whole number and then move the decimal in the dividend the same number of places. Then bring it up.

3. Divide as if the numbers are both whole numbers.

4. Annex zeros in the dividend as needed until there is no remainder. If your answer is a repeating decimal, write the answer using bar notation.

ex: 25.3 ÷ 0.3

$$
\begin{array}{r}
84.\overline{3} \\
0.3\overline{)25.30} \\
-24 \\
\hline
13 \\
-12 \\
\hline
10 \\
-9 \\
\hline
1 \\
\end{array}
$$

Order of Operations

1. Grouping Symbols (parentheses, brackets, etc.)

2. Exponents

3. Multiplication & Division (left to right)

4. Addition & Subtraction (left to right)

ex: 5 + 4(3 - 1.2)

5 + 4(1.8)

5 + 7.2

12.2

Evaluate each expression.

1. 5.983 + 2.99	2. 224 - 56.73	3. 6.12 - 4.923
4. 24.5 · 3.2	5. 0.23 · 7	6. 3.86 · 9.15
7. 14.8 ÷ 5	8. 46.3 ÷ 1.5	9. 147 ÷ 2.25
10. 24.33 - 2.5 · 7	11. 3.9 + 4.5^2	12. 9.25(18.4 - 2 · 1.2)

Solve each word problem, showing all work.

13. Jeff had $46.18 in his wallet Monday morning. He gave half of his money to his brother. He then bought two donuts for $0.75 each and a cup of coffee for $2.99. How much money did Jeff have left?	14. Five friends split a $65.20 bill at a restaurant. They also each left $2.75 for the tip. How much money did each person pay in all?