Step by Step Guide for Dimensional Analysis

- 1. Set-up the "given" as a FRACTION.
- 2. Determine what units you need for your answer.....
 - ★(You need to cancel the units you cannot use in your answer.)
- 3. Decide which units in the "given" you want to get rid of first.
- 4. Set-up a <u>FRACTION</u> by putting the unit you want to get rid of opposite of where it is in the given.
 - 🌟 (if it's on TOP put it on the BOTTOM of the new fraction!)
- 5. CANCEL the UNIT!
- 6. Now, put the unit that you need for your answer into the fraction.
 - *(the top or bottom of your fraction should be empty....put it there!)
- 7. ASK YOURSELF...."What do I know about these units, how are they related?" (you can look at your handout with all of the conversions for this step.)
- 8. <u>CHECK</u> to see that the <u>only units left are the ones you need</u>.
- 9. If you have all of the units you need.......

MULTIPLY ACROSS the TOP and MULTIPLY ACROSS the BOTTOM.

then

<u>DIVIDE</u> the numerator by the denominator ($top \div bottom$).



Don't forget the UNITS on your ANSWER!