

Steps for unit conversions

1. Write out the units you have (when appropriate as a fraction):
2. Write out the units you want to end with:
3. Determine appropriate conversion factors (in some cases, there will be more than one conversion factor for each of the units you have):
4. Evaluate appropriate arrangement for fractions (that is, what units belong in numerator (top) of fraction? What units need to be in denominator (bottom)? Remember, units cancel when one unit is in numerator and the other is in the denominator). Remember that when you multiply fractions (as you will in step 6 below), you can cancel units ONLY when they appear in both the numerator and the denominator.
5. Set up the conversion by writing the fractions in a row with multiplication signs in between
6. Evaluate. Do the original units cancel so that you are left with ONLY the units asked for? If not, repeat steps 3 and 4 until you are left with appropriate units:
7. Multiply across top and bottom:
8. If necessary, reduce the fraction.
9. Evaluate your answer.