How to solve word problems.

1. Read the problem through twice.

2. Write down what is known and what is the desired quantity. This includes all information given in the problem plus any relevant information given elsewhere, such as in the text (possibly including tables) or class. Write down formulae that will/may be useful to solve the problem.

3. Pay careful attention to units.
   In astronomy problems the optimal units may be units of solar mass, solar luminosity, light years, parsecs etc. If unsure, then convert quantities to standard units (m, kg, s).

4. Draw a clear labeled diagram of the problem. Incorporate as much information into the diagram as possible. Try to mark on diagram known and unknown quantities.

5. Rearrange the formulae to get the unknown quantity by itself and written in terms of known quantities. Do not plug in the numbers until this is done.

6. Input values(numbers and their units)into formula and compute the answer. At this time convert quantities (if necessary) into units specified by the problem (for example solar units, parsecs, cgs or mks). Otherwise the final answer should generally be written to 3 significant figures or 2 decimal places. Do not need to do this until final step.

7. Check to see if your answer makes sense. For example, if you get an answer of 3m for the distance between the Earth and the Sun, you have obviously done something wrong !