Physics Problem Solving Tips

1. Identify what principle the problem involves. Is the problem about projectile motion? Circular motion? Conserving energy?  This will help you analyze the problem and make sense of the givens.

2. Get help immediately from your teacher or someone from your class with those problems where you do not understand what you did wrong.

3. Showing your work makes it easier to find mistakes and to prepare for exams.

4. Work on understanding concepts, rather than trying to memorize a recipe. Learn to apply principles to solve problems; there are too many kinds of problems to be able to memorize all the recipes. Trying to memorize recipes makes it less likely you will be able to solve new problems.

5. Keep up with the assignments as they are due. The ideas you will try to learn tomorrow usually depend on understanding what was discussed today.

6. Staring at a blank page is a waste of time. If you get stuck, talk to your teacher or someone from your class.

7. Almost any problem you encounter in a physics course can be described with a drawing. Such a drawing often contains or suggests the solution to the problem. Put as much information as you can in the drawing.

8. Draw a second picture such as a free body diagram, a graph, a vector diagram. Include the coordinate system for the situation. This is particularly important for problems involving forces.

9. Before doing any calculations, guesstimate what a reasonable final answer might be if you can. Check your solution against your guesstimate. This will develop your intuitive understanding of the problems.

10. Practice makes perfect. Do as many problems as you can and monitor your progress with [practice problems and solutions](http://www.physics247.com/physics-homework-help/index.shtml).