

## Studying Smarter, Not Harder, in Your Math Class

Familiar scenario: A student in a math class did ALL the homework AND studied for the exam and ... failed! Oh no! This student is now very discouraged. How could all that work have resulted in a failing grade? What went wrong?

***Math proficiency (as measured on a test) = 2 parts practice + 1 part review***

<p><b>PRACTICE</b>:... is all about the details! You work for understanding and skills.</p>	<p><b>REVIEW</b>... is all about the Big Picture! You work for mastery and recall.</p>
<p><b>ORGANIZE!</b></p> <ul style="list-style-type: none"> <li>• Have a math notebook that's ONLY for math.</li> <li>• Keep notes separate from homework.</li> <li>• For each homework assignment, write down the section and the assigned problems at the top of your paper.</li> <li>• Keep track of which problems you're stuck on so you can ask about them ASAP.</li> </ul> <p><b>HOMEWORK STRATEGIES</b></p> <ul style="list-style-type: none"> <li>• Give yourself LOTS of ROOM to do the problems.</li> <li>• Write down the ORIGINAL PROBLEM.</li> <li>• Also write down the INSTRUCTIONS for the problem</li> <li>• Do the problem and CHECK your answer (Tip: Use a paper clip to mark where the answers are in the back of the book or take a picture of them with your phone so you can quickly check your answers.)</li> <li>• If the answer is incorrect, see if you can find the error and FIX IT.</li> <li>• If you can't find the error, DON'T ERASE your work! Try to REDO the problem.</li> <li>• Still stuck? Circle the problem and GET HELP...soon! Don't wait a week to ask about it.</li> </ul>	<p><b>REVIEW STRATEGIES</b></p> <p>If your instructor assigns review problems from the book and/or hands out a review sheet/sample test, then</p> <ol style="list-style-type: none"> <li>1. Attempt to do all of the problems WITHOUT LOOKING at your notes or old homework.</li> <li>2. Circle the problems you're stuck on, leave room to work and go back to them later (like you'd do on a test).</li> <li>3. Try, try, try to remember! This is forcing your brain to work at storing the information and recalling it. If you can't remember then...             <ol style="list-style-type: none"> <li>a. Look back at your notes and old homework to review how to solve that problem. Try NOT to do this with a tutor. Tutors are great for practice, not so great for review.</li> <li>b. Now, go find more of that type of problem and practice doing those until you can do them WITHOUT LOOKING or getting help.</li> </ol> </li> </ol> <p>Okay, now your review assignment is done. Time to redo it...but just using mental math!</p> <p>Put the pencil down, and...VISUALIZE!</p> <ol style="list-style-type: none"> <li>1. Cover up the work (solution) for each problem with your hand or a piece of paper.</li> <li>2. Look at the original question and ask yourself what you should do, what formulas to use, what you expect the answer to look like, etc.</li> <li>3. Talk yourself through the problem (again, without looking!) Your room-mates will think you're nuts but that's their problem!</li> </ol> <p>Now look at the solution you'd written out before. Were you right about what to do? If not, cover it up again and mentally go through the steps until you get it right!</p>