



Douglas College

Douglas College Learning Centre

TIPS FOR SURVIVING MATH

These can be applied to Physics, Calculus, Business Math, Accounting, Psychiatric Nursing, etc.

1. This is the most important tip for math so please read carefully and re-read if necessary: **BE NEAT!!!**

It is truly amazing how many people get the wrong answers or no marks for their answers because they (or most likely their instructor) cannot read the chicken scratch on the paper. Use a pencil and eraser whenever possible and erase everything completely. A scribble that has not been erased can be mistaken for a negative sign, etc. and really mess up your answer. If you must submit your work in pen, be sure to have the final solution that you are going to hand in before you write it down in pen. (It's kind of like writing a rough draft of your assignment).

2. This one is a very close second. **WRITE OUT EVERY SINGLE STEP!!** (This may seem mundane at times but it really helps)

Two reasons:

- 1) Many students try to solve equations in their heads, then get mixed up and have no 'paper trail' to solve the answer correctly.
 - 2) Instructors love to see that you've done some work. If you write down the solution in full, they know you haven't just copied the answer out of the back of the book. Also, most of the time on tests or marked assignments, a correct answer is only worth a fraction of the marks that the question is worth. What a teacher really wants to see is that you know how to solve the question or that you've at least made a valiant attempt. If you start a solution but get mixed up along the way, the teacher will usually give partial marks for attempting the solution with the correct approach.
3. Know all the formulas that you are responsible for. There is no point in memorizing formulas if you do not know how to use them and manipulate them.
 4. Identify what you're solving for and understand what the question is asking you to solve for.

5. Know how to use your calculator! This is extremely important in Business Math and Accounting where you're allowed to use your calculator for the time value of money calculations.
6. Keep equations balanced. Whatever you do to one side of the equation you must do to the other side. If you don't follow this rule, you tip the scales and get a whole new equation.
7. Try to eliminate fractions whenever possible. If this is not possible, at least find a common denominator.
8. Keep a list of formulas, rules and properties that you will be responsible for. This can be a working list that you add to as you cover more topics. Generally, textbooks will somehow highlight key formulas, rules or properties. This includes the use of bold font and boxes of text. Keep this list handy when studying for tests or completing assignments.
9. Don't forget the signs! It is positive to have two similar signs and negative to have two opposites.
10. Reduce everything to the lowest terms possible.
11. When solving word problems, include "Let $x = \dots$ " statements. Explain your equation and what it is solving for. Also, list all variables that you know and don't know.
12. When graphing, be neat and label everything, such as intercepts, vertices, as well as the equation of the line and the axis. It is best to use a ruler to draw straight lines.
13. Last, but far from least, **PRACTICE MAKES PERFECT!** The more you practice math, the more you begin to recognize patterns in equations and the more familiar you become with the formulas that you are using.