

Achieving Success in Math Black Collegians/Adelante Programs

Classroom

1. Attend classes and practice active listening

It is important that you attend ALL lectures if possible! If you do miss a class, make sure you copy or take pictures of the notes from a classmate.

2. Ask questions

Do NOT be afraid to ask questions in class! Your professor may not realize that a concept is unclear until you raise your hand and ask a question. Chances are others have the same question but are afraid to ask. Don't be scared!

3. Math is cumulative

This means that the topics build on one another. Understanding each topic depends on understanding the previous material. Do not let yourself fall behind.

Studying/Homework

1. Practice! Practice! Practice!

The way to learn math is by seeing solutions to examples and doing exercises. It is easy to read a solution, or watch your professor solve an example, and believe you know what to do. Learning math requires that you actually perform solutions by yourself.

2. Think of your homework as brain exercises!

Researchers say the mind can be strengthened, just like your muscles, with regular training and rigorous practice. Think of the homework exercises as brain calisthenics.

3. Do your homework

For each hour of class, it is recommended that you spend at least two hours outside of class completing all homework assignments. Attempt to work every assigned problem. Check your answers. Correct your errors. Ask for help with the problems you have attempted but do not understand.

4. Don't panic!

Don't panic at the length of the exercise sets. You are not expected to work all, or even most, of the problems. Your professor will provide guidance on which exercises to work by assigning those problems that are consistent with the goals and objective of the course.

5. Learn from your mistakes

Being human means making mistakes. By finding and understanding your errors, you will become a better math student.

6. Don't be afraid of word problems

There is a great value in reasoning through the steps for solving a word problem. This value comes from the problem-solving skills that you will attain and is often more important than the specific problem or its solution.

7. The 10 Minute Frustration Rule

If you have exhausted every possible means for solving a problem and you are still bogged down, stop after ten minutes. Put a question mark by the exercise and move on. When you return to class, ask your professor for assistance.

8. Seek tutoring

First try solving the problem on your own! If you are having difficulty with a concept or problem, bring your work so that your tutor can determine where you are having trouble.

9. Have a study buddy/math BFF!

Talk math by discussing and explaining the concepts and exercises to one another. Speaking about a new concept uses a different part of your brain than thinking about the concept. It will help you to remember new concepts for longer periods of time.

10. Use technology to your advantage

Don't just use YouTube for music videos! Navigate to videos for help and additional study.

Preparing for Exams

1. Study early and without distractions

Do not wait until the last minute to study for an exam! Cramming is a high-stress activity that forces your brain to make a lot of weak connections. Choose an environment with minimal distractions.

2. Use your homework and textbook

Review your worked-out homework, quizzes, and previous exams. Be sure you understand any errors that you made. Seek help with any concepts that are still unclear. For further review, work out the relevant exercises in the Chapter Review.

3. Analyze the errors you make on quizzes and tests

For each error, write out the correct solution along with a description of the concept needed to solve the problem correctly.

4. Seek additional help

If time permits, ask your professor if there are additional materials to help you review. Attend any review sessions conducted by your professor. And remember: there is always tutoring in the Counseling Complex!

Taking Exams

Assuming that you have done very well preparing for an exam, **there are certain things you can do that will make you a better test taker:**

- Get a good sleep the night before the exam.
- Have a good breakfast that balances protein, carbohydrates, and fruit.
- Just before the exam, briefly review the relevant material in the chapter summary.
- Bring everything you need to the exam (pencils, erasers, scratch paper, calculator, water).
- Select a desk that minimizes distractions and puts you in the right frame of mind.
- Survey the entire exam quickly to get an idea of its length.
- Read the directions to each problem carefully. Make sure that you have answered the specific question asked.
- Work easy problems first. Return to the hard problems afterwards. Doing the easy problems first will build your confidence.
- Attempt every problem. Write something down, anything, even if it is a formula that you think might solve a problem or a possible idea or procedure for solving the problem.
- Work carefully. Show your step-by-step solutions neatly. Check your work and answers.
- Watch the time. Pace yourself and be aware of when half the time is up.
- Never turn in a test early! Use every available minute you are given for the test.

Edwin Cruz

Math Instructional Assistant

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