

GENERAL PRAXIS II MATH ADVICE

The week before the exam, visit the test site. Know how long it takes to get there, and find exactly where the building is.

The day before the exam, install fresh batteries in your calculator, and sharpen some pencils. Make sure the erasers are clean too. Assume the test site will not provide this.

This exam is stressful for many reasons. You may be at a test site where you don't have as much space to spread your materials (test booklet, answer sheet, pencils, calculator) as when you studied. People are taking other non-math exams and may not have the same time pressure.

At the exam, if your particular seat is not as well-lit as others, ask to have your seat changed.

Consider how quickly you need to work.

Although some state versions differ, if you are taking a 2 hour exam with 50 multiple choice questions, that averages to about 2 minutes per question, with only 20 minutes left at the end to check your work. For an exam with 40 multiple choice questions and 3 essays, 2 minutes per multiple choice question leaves you with 13 minutes to do each of the 3 essays, with no time left to check.

With some questions you may be able to simply write down the answer in a few seconds. Others will be quite time-consuming. Expect some questions of a type you have never seen before, no matter how many practice problems you have done.

So you really have to work quickly!

This means swallow your pride (and we math people have huge egos - "I can do that problem if I only had a little more time ... "), use the calculator for a problem you know you can do without it, and simply give up and move on when a problem is taking more than say five minutes.

As an example, there is no excuse to do a 3×3 determinant without the calculator. The calculator is quicker, plus the chance of making an arithmetical error without the calculator is huge.

On the other hand, it is quicker to invert a 2×2 matrix by hand: learn the technique.

If there are several approaches on a problem, take a moment's thought before diving in: possibly one approach is much quicker. I confess on the exam to solving a logarithmic equation to get an answer that I should have simply written down from basic principles.

Learn to do the specific calculations recommended by ETS on the graphing calculator:

computing a numerical value of a derivative
computing a numerical value of an integral
computing a numerical value of a solution to an equation
graphing a function

Learn to do the following matrix calculations on the graphing calculator:

invert a matrix
calculate the value of a determinant
reduce a set of linear equations to reduced row echelon form.

Input an arbitrary 3×3 matrix and 3×4 matrix into the calculator, so that you just have to change values to do the above matrix calculations.

Use smart multiple choice exam strategy:

Can you simply plug in the answer choices and see which works?

Can you use the answer choices to estimate the answer or to look for a factor you may not have considered? (For example, if all the answer choices contain the square root of 3, consider what might have to occur in the solution to get to that.)

Can you use the more specific results of a general statement to your advantage? (For example, if a statement says it is true for all equilateral polygons, can you do anything with an equilateral triangle? Or if a statement is true for all integers N , can you substitute $N=1$ and $N=2$?)

If you don't know an answer, guess. (There is no penalty.) Eliminate obvious outliers.

On essays, make sure you answer each subpart. Write down enough to show your logic; they are generous with partial credit. Make sure you answer specifically what they ask.

It's a 2 hour exam, and time is of the essence. Use the rest room facilities before the exam; you are not going to have time during the exam.

How many questions do you need to answer correctly to pass? One author (see <http://eduinsights.blogspot.com/2006/07/highly-qualified-math-teacher.html>) thinks for the 0061 exam, answering about 50% correctly converts to a score of about 145 which is passing in all but three Praxis II states; answering about 63% correctly is passing in all Praxis II states.

Good luck!

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