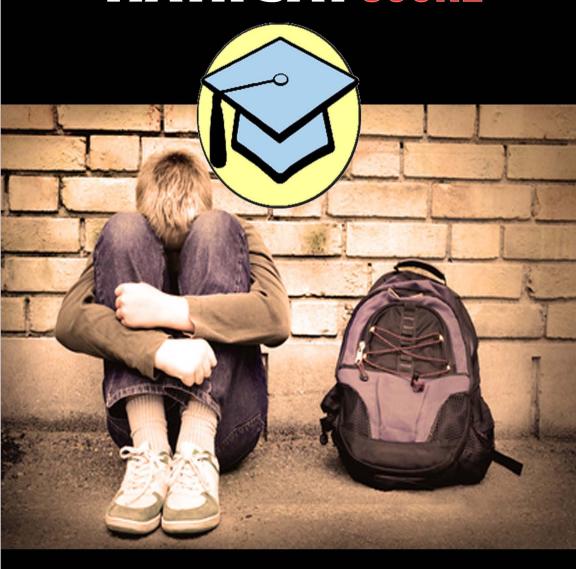
# THE MOST COMMON MISTAKES STUDENTS MAKE THAT LOWER THEIR MATH SAT SCORE



# THE 10 MOST COMMON MISTAKES STUDENTS MAKE THAT LOWER THEIR MATH SAT SCORE

# 1. Answering too many questions.

Students have been trained since they were very young that they need to answer every question that is on a test. For most in-class exams this is good advice. On standardized tests however this advice can be very bad. Attempting to answer too many questions on the SAT is guaranteed to lower your score. Here are some of the negative effects of trying to answer too many questions:

- (1) Precious time is wasted attempting problems that are too hard. This time could be spent ensuring easier problems are correct.
- (2) Students spend less time on easier problems, thus making careless errors.
- (3) Test taking anxiety is much higher because the student has too many questions to get to in very little time. This leads to more careless errors.

In many cases simply by reducing the number of questions that you answer on the exam your score can go up 40 points or more. This may seem unlikely but if you think about it for a moment it makes perfect sense. If you eliminate just two careless errors per math section (1 multiple choice question and 1 grid in per section), you add 4 points to your raw score. This translates roughly to 40 points on the SAT.

So how many questions should you be answering? There is no absolute answer to this, but here is a general guideline.

There are two math sections on the SAT — one where a calculator is allowed and one where a calculator is not allowed. The calculator section has 30 multiple choice (mc) questions and 8 free response (grid in) questions. The non-calculator section has 15 multiple choice (mc) questions and 5 free response (grid in) questions.

You should first make sure that you know what you got on your last SAT practice test, actual SAT, or actual PSAT (whichever you took last). What follows is a general goal you should go for when taking the exam.

| Score     | MC<br>(Calculator<br>Allowed) | Grid In<br>(Calculator<br>Allowed) | MC<br>(Calculator<br>Not Allowed) | Grid In<br>(Calculator<br>Not Allowed) |
|-----------|-------------------------------|------------------------------------|-----------------------------------|--|
| < 330     | 10/30                         | 3/8                                | 4/15                              | 1/5                                    |
| 330 – 370 | 15/30                         | 4/8                                | 6/15                              | 2/5                                    |
| 380 - 430 | 18/30                         | 5/8                                | 8/15                              | 2/5                                    |
| 440 – 490 | 21/30                         | 6/8                                | 9/15                              | 3/5                                    |
| 500 - 550 | 24/30                         | 6/8                                | 11/15                             | 4/5                                    |
| 560 – 620 | 27/30                         | 7/8                                | 13/15                             | 4/5                                    |
| 630 - 800 | 30/30                         | 8/8                                | 15/15                             | 5/5                                    |

This is *just* a general guideline. Of course it can be fine tuned. As a simple example, if you are particularly strong at heart of algebra problems, but very weak at geometry problems, then you may want to try every heart of algebra problem no matter where it appears, and you may want to reduce the number of geometry problems you attempt.

One important thing. There is no guessing penalty on the current version of the SAT. So although you may not be attempting to solve some of the problems, you should still fill in an answer for every single question. Before time is up make sure to bubble in random guesses for the problems you did not attempt.

# 2. Not checking answers.

Many students feel a terrible amount of time pressure when taking their SAT. One of the primary causes of this is answering too many questions, as stated above. Students therefore tend to rush through questions without checking over their work. This results in a significant number of careless errors.

The fact is that if you're taking the test correctly, there is no need to rush through anything. You should be able to do each problem, and check it over quickly before moving on. Use the strategies that I teach you to get through problems quickly, but don't rush through the actual mechanics of doing the problem.

Furthermore, you should always use at least five minutes at the end of the test for going back and checking over your earlier work. Remember, if you catch just two careless errors per section, your score will go up approximately 40 points.

# 3. Getting hung up on one question.

Students often have the misconception that if they abandon a problem, all the time that they have put into it has been wasted. Nothing could be further from the truth. In fact, sometimes leaving a problem temporarily is the best thing you can do to solve that problem. I can't tell you how many times I have abandoned a problem to do something else, and then all of a sudden many minutes later the answer came to me without me even consciously thinking about it. Even if this doesn't happen, coming back to a problem later with fresh eyes is often very helpful. Your mind will not forget all the work you have already done on that problem.

So when is it time to move on? After you've been working on a question for about 1 minute you should make a decision. If you understand the question and think that you can get the answer in another 30 seconds or so, continue to work on the problem. If you still don't know how to do the problem or you're using a strategy that is going to take a long time, mark it off and come back to it later if you have time.

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Always feel free to take a guess, but you still want to leave open the possibility of coming back to it later. Remember that every problem is worth the same amount. Don't sacrifice problems that you may be able to do by getting hung up on a problem that is too hard for you.

Make sure that you are wearing a watch on test day. This will help you with your pacing.

# 4. Going with the first instinct on hard questions.

A standard piece of test-taking advice is to always go with your first instinct. In general this is good advice, but on standardized tests this advice is terrible.

The problem is that the more difficult SAT questions are specifically designed to trick you. This means that if you go with your first instinct, you are probably falling right into the trap that was laid out for you. On high numbered math questions on the SAT you should actually eliminate a choice if your intuition leads you to that answer too quickly. If you have a proper justification for why that particular answer is correct, then of course you can choose that answer. Otherwise however you should take a guess from the other choices.

# 5. Performing complicated computations.

It is never necessary to do messy algebra or perform tedious and complicated computations. If you find yourself doing this often, it means that you do not know some basic SAT test-taking strategies.

# 6. Taking the test without knowing the directions and given geometric formulas by heart.

Although I advise you not to rush through questions, you shouldn't be wasting your time either. The last thing that you want to be doing during the test is reading the directions. They are always the same. Learn them ahead of time.

A more common mistake than that is walking into the test without knowing the geometric formulas that are given to you on the front of each math section. There aren't that many. Just memorize them. It is a waste of time to be flipping back and forth.

The more advanced student may want to memorize additional formulas to save time while taking the test. Visit the following page for details: <u>SAT Math Formulas</u>

# 7. Overusing their calculator.

Sometimes I see students typing away on their calculators without taking any break. What they are usually doing here is wasting time. Your calculator is a tool that is there for you to speed up computations. It is not there to solve the problem for you.

If you are taking the test right, you shouldn't be using your calculator all that much.

That said, make sure that you do use your calculator for arithmetical computations (on the section where a calculator is allowed). This is usually quicker than doing computations by hand or in your head, and you're less likely to make a careless error.

Finally, make sure that you know how to input things into your calculator correctly. Many students mess up their order of operations when using calculators, especially using parentheses correctly. Remember that as a general rule numerators, denominators and exponents should all be in parentheses when using your calculator.

A complete list of things you should know how to do with your calculator can be found here: <u>Graphing Calculator Features You Should Know for the SAT/ACT</u>

# 8. Rounding or truncating decimals too soon on grid ins.

When gridding in an answer all four slots must be used unless the answer terminates before this. I see students get answers wrong all the time because they rounded an answer to soon. If your calculator displays 2.111111111 for the final answer, then your answer will be marked wrong if you grid in 2.1. You must grid in 2.11.

# 9. Being nervous for no reason.

Some students get test-taking anxiety, and some more than others. This is just a fact we have to deal with. There are many techniques you can use to alleviate test-taking anxiety such as meditation and other techniques of the mind.

There are some reasons for nervousness that can easily be avoided. For example, reducing the number of questions that you expect yourself to answer can go a long way in making you less nervous. When you come to a problem that is giving you a lot of trouble simply move on to the next one. You don't need to answer all of them.

Another way to battle nervousness is through confidence. Spend at least 3 months before the exam preparing about 10 to 20 minutes each day. Learn all of the basic strategies that I teach, and make sure to practice some problems that are right at your ability level. Although getting answers correct does **not** improve your score (only learning from your mistakes improves your score), getting some answers correct will instill confidence. This will ensure that you don't **decrease** your score.

If you are a nervous test taker, then you may want to check out the following article I've written: Eliminating Test Taking Anxiety

# 10. Running out of steam.

The SAT is a long test. Many students lose too much endurance and start performing poorly towards the end of the exam. All you need to do to combat this is to be prepared for it. Try to do at least 2 full practice tests before the actual exam. Struggle through that length of time so you can feel it before it matters.

Be aware that practice tests generally leave out the experimental section. This makes most practice tests a bit shorter than the actual SAT. When I give my students full length practice tests I always add in an extra "experimental" section so that they can really feel the full amount of time. I suggest you do the same. Just take one extra section from another test and add it to your own practice test.

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