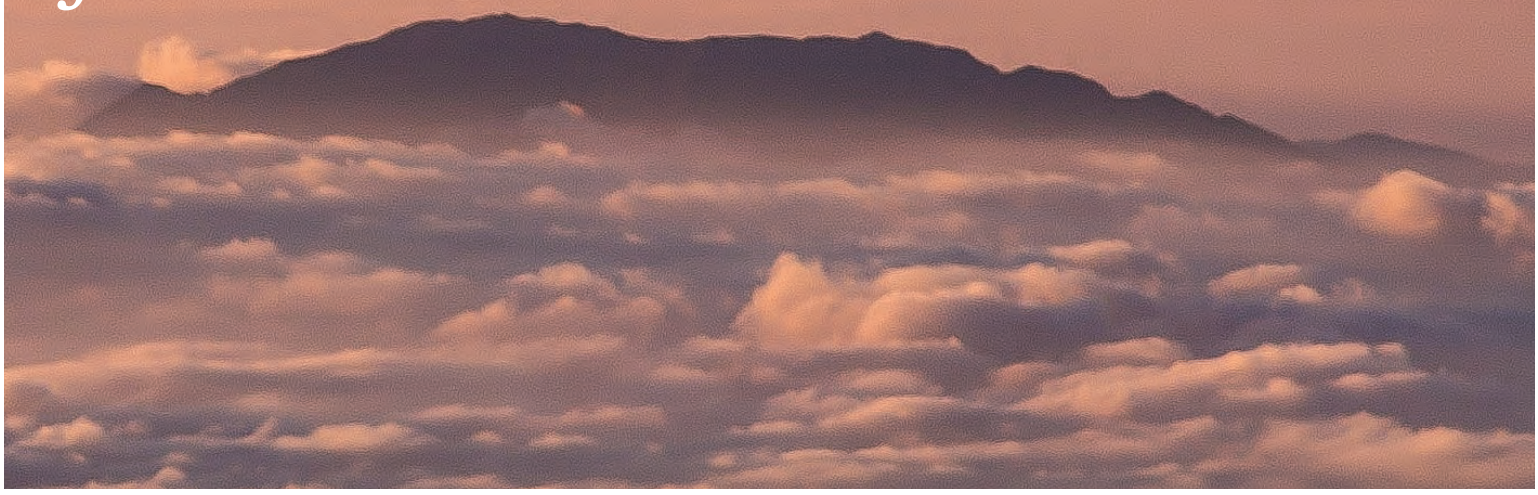
Carnegie Prep's

Top 5 Strategies

for the SAT & ACT



Top 5 Strategies

So you're going to take the SAT or ACT: whether it's your first time or your fifteenth, our top strategies will help give you an edge on your next sitting. These are just some of the little nuggets of wisdom that our tutors and teachers pass on to Carnegie Prep students. Our strategies may seem simple, but given diligent practice, they are proven to increase your scores. Check out our suggestions and see if you are using each strategy to its ultimate advantage.

1

SAT Reading

Coming in at 52 questions and 65 minutes, the SAT Reading section is the longest, most dense, and oftentimes most challenging section for students. On any given day, comprehension of these sometimes unwieldy, erudite passages can be difficult. Add a timed setting, a classroom full of anxious teenagers, and you're facing a serious challenge. Never fear: we've compiled five of our most proven tangible strategies that are guaranteed to help you boost your scores and knock this section out of the park.

1. Best evidence: it's better together

Answer the "Best Evidence" questions together. These question pairs tend to be the biggest challenge for students in the Reading section. You'll have a much better chance of answering both of these questions correctly if you treat them in tandem. In other words, move to the Part 2 quotations first, identify which quotes pertain to the question in Part 1, and choose a pair of answers that work nicely together.

2. Pre-read the blurb and the questions

Think of it as a way of warming up your brain for the main event of the passage. Going into the reading having previewed the questions will make you a more attentive reader and keep you actively reading the whole way through. Important distinction: we are not suggesting that you answer the questions right away —just that you read them all. Doing so will give you an idea of not only what you're about to read, but how you should read. Should you keep the main purpose in mind? The chronology? The relationship between characters, or passages themselves? All of this will make your actual reading much more efficient and your underlining more purposeful.

3. Vocab in context: use your words

If you master a strategy of attack, these predictable question types can easily become your friends. Remember that the test maker is asking you about the word "in context" or "in consideration of the way it is used in the sentence." Consequently, in order to ensure we're paying more attention to the context than the "dictionary" definition of the word, we recommend that you come up with your own synonym that makes sense in the passage, and find its best match among the answers.

Go ahead and strike out anything that is too much of a "textbook" or "dictionary" definition.

[...] I am afraid I have somewhat belied half the dear old lady's prophecy. Heaven help me! I have done a good many things that I ought not to have done, in spite of my laziness. But I have fully confirmed the accuracy of her judgment so far as neglecting much that I ought not to have neglected is concerned. Idling always has been my strong point. I take no credit to myself in the matter—it is a gift. Few possess it. There are plenty of lazy people and plenty of slow-coaches, but a genuine idler is a rarity. He is not a man who slouches about with his hands in his pockets. On the contrary, his most startling characteristic is that he is always 19 intensely busy.

Adapted from Richard Florida, The Great Reset.
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2. As used in line 19, "intensely" most nearly means:
A) Purposely
B) Emotionally
C) Profoundly
D) Rapidly

The question type above is a common one. If we look closely, we'll notice that all of these answer choices are distinct definitions of the word "intensely." To match the context, we can choose a word of our own that would fit. Using the words around "intensely," I might choose "very" or "tremendously." Looking at the answers, "Profoundly" is the word that matches mine the best, so it must be the correct answer. Bubble away!

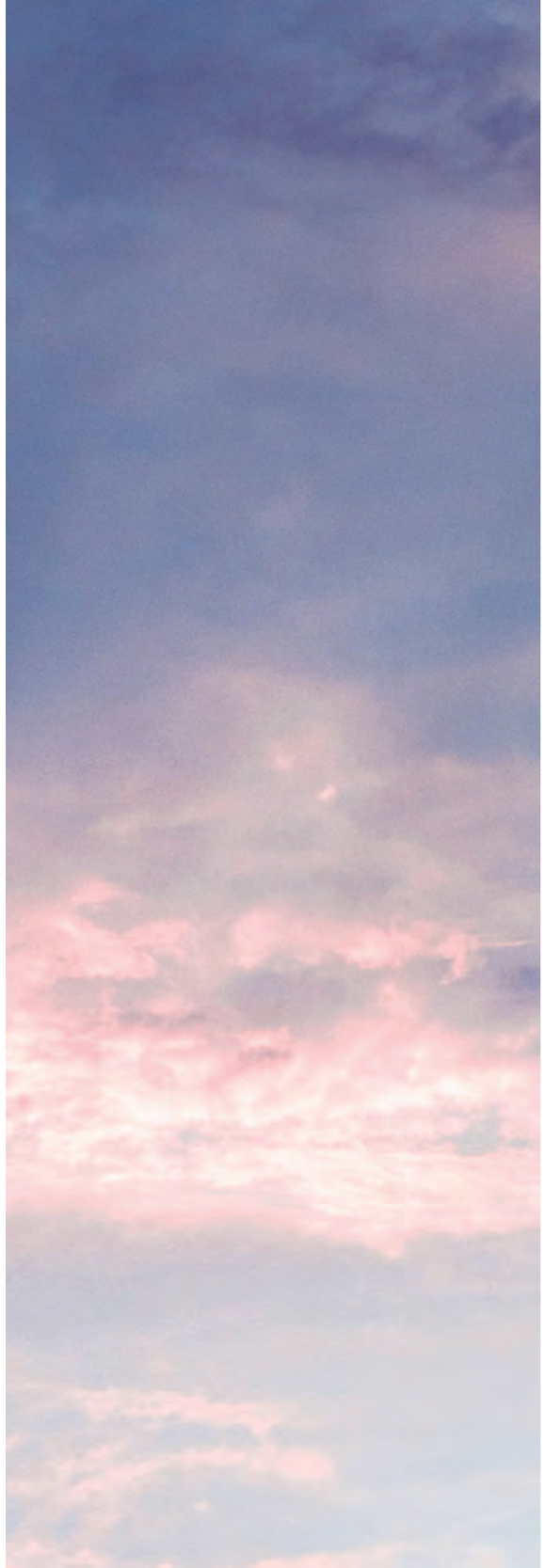
4. Don't let the bright lights fool you

Have you ever seen an answer that just looks really good? One that seems it has to be right simply because it sounds so sophisticated or complex? Watch out! You may be stepping into a deliberately set trap. The test makers know which answer choices will look really good, really slick, and really tempting; they often capitalize on this by slipping a "landmine" into these answer choices, typically in the 2nd half of the option, to make the whole answer choice blow up. So SLOW DOWN. To these ends, your strategy should be to eliminate wrongness. Take your time to physically cross out anything that has problems. Then evaluate what remains. Remember, you aren't necessarily looking for the "right answer" — you are looking for the least problematic one. This is why process of elimination is so vital on the SAT. You may say that you cross off answers in your head, but in our experience, students that take the time to physically eliminate bad choices, up their scores.

Pro tip: Believe it or not, the passages chosen in the SAT Reading section are not picked for the sole purpose of confusing you. In fact, they are carefully selected as passages that should have some cultural, historical, or scientific relevance to you. The most prolific SAT Reading test takers are ones who can identify that relevance. Does this historical passage have any present-day implications? Does "the migration patterns of penguins" have any big-picture implications for evolution, or climate change, or any other science buzzword that you know about? Next time you take a practice SAT Reading section, ask yourself these questions — namely, why were these passages chosen — and watch your scores shoot up.

5. Find it interesting

We know you've probably read enough passages about the mysteries of penguin genetics, or the fascinating world of 19th century interstate commerce, or whatever the test maker sticks in passages to last a lifetime. But an amazing thing happens when you get interested in the subject of the reading passage — it gets easier. Ask yourself: what is fascinating about this topic? Does it have parallels or implications for aspects of my life? Or, do I know someone who would find this fascinating, and can I put myself in his/her/their shoes? An interested reader is an active reader, and an active reader is a high scorer. (Confused about active reading? Basically, it means not letting the text roll over you and knock you down. Paraphrase the meaning of each paragraph — even if you don't understand the whole thing — silently before you move onto the next one. After you finish reading the entire passage, push yourself to summarize it in one line.)



2 SAT Math

(CALCULATOR & NO CALCULATOR)

The style of questions offered on both sections of the SAT Math are, simply put, unlike most math questions you've seen in school. Interestingly, though, most students have actually moved beyond the type of math tested on these sections at least a year prior to taking the test. As such, much of the material tested will seem simultaneously vaguely familiar (in terms of content) and scarily unfamiliar (in terms of question style). Fortunately, like the rest of the SAT, patterns exist and strategies abound. These ten strategies in particular are proven to achieve success on this test.

MATH-NO CALCULATOR

1. Linear equations, quadratic equations, systems of equations

The three pillars of SAT math, these three make up the majority of questions on this section. Study them intensely. Wait, did you study them? Study them again, and again.

2. Plug in, creatively

Your math teacher is not grading this test, so who cares about solving with the "correct" methodology? Plugging in is essential. Be creative as you work backwards. For instance, you'll get many problems that ask you to find "equivalent expressions" of ones given:

Which of the following expressions is equivalent to $\frac{2-5x}{x+3}$ from the ones listed below?

A) $\frac{2-5}{3}$

B) $\frac{2}{3} - 5$

C) $\frac{2}{x+3} - 5$

D) $\frac{17}{x+3} - 5$

This is a difficult problem to solve straightforwardly, and the test makers are aware. That said, if we plug in a value into the top expression—say, x = 1—we know that whatever value that produces, the correct answer should also produce that answer. When we do, we get -¾. Going down to the answer choices, the only choice that produces -¾ when x = 1 is D ($1\frac{7}{4} - 5 = 1\frac{7}{4} - \frac{20}{4} = -\frac{3}{4}$).

These equivalent expressions problems pop up constantly, so be aware of this shortcut. Note: This is our favorite strategy on the whole math test!

3. Know the key formulas that come up 8 billion times

Slope Intercept, Percent Change, Equation of a Circle, Quadratic Formula, etc. Easy fixes. Additionally, next time you take a practice test, really look at the first page of the Math section. The test maker literally gives you some formulas to work with. Many students are unaware that Area and Circumference of a circle, or that relationship between 30-60-90 triangles, are given to them on the first page. That's right! They are literally giving you the formulas.

Pro Tip: If you have trouble memorizing other useful formulas, take a moment at the beginning of the section to scribble these down on the top of the first page of the section. Then, move forward. Refer to your little "memory bank" when you need.

4. Factor

This we cannot stress enough. Difference of Squares and Perfect Square Trinomials will appear several times on each test. Your ability to factor will be a huge factor in your success on this section. (We can hear you laughing! SAT jokes are the best jokes.)

5. Long problem? Don't fall for their trap

This is a tall order for many students, but if the question is a long one, know that the length is likely just there to confuse you. Jump down to the actual question to see if you can answer it without the information. Then scan the answer choices. If you still can't figure out what the task at hand is, read through the question and underline keywords.

MATH-CALCULATOR

1. Use your calculator

We know it sounds silly, but don't forget to use the tool you are given. Understand what algebraic problems mean visually and let your graphing calculator guide you to that answer. For instance, did you know that a solution to a system of equations is just the intersection point between their graphs? Graph and get that solution without even knowing any algebra.

2. Watch out for what they're asking

Applicable to both Math sections, but often times, an SAT Math question will ask for an expression, rather than just "X" or "Y." In fact, it's frequently easier to solve for that specific expression. Ask yourself, why are they having me solve for this specific expression? Let them "meet you halfway."

In the following system of equations, what is x - y?
4x - y = -4
x - 4y= -26

This problem would be doable but still relatively cumbersome using our traditional methods of Substitution or Elimination. Instead, notice that just from adding these two equations together initially, we get 5x - 5y = -30. Then, dividing each side by 5, we get x - y = -6 . We've solved directly for the expression, both saving time and gaining a sense of victory over the test maker.

3. Standard deviation, line of best fit, two-way tables

Obscure topics, but they come up on just about every test. Learn them, and use them.

4. Use dimensional analysis for conversions

Many students have been introduced to this process in Chemistry. It is extremely applicable and delightfully simple in a process (conversions) that can be very confusing.

5. Write it down, draw it out

You have 55 minutes for 38 questions on this section. In other words, you have time. Don't feel like you have to do any mental math or geometric picturing. Write down (and number!) those steps. Draw out those coordinate planes. Scribble all over that test booklet. It will ultimately save you time and confusion.

3 SAT Writing & Language ACT English

Two sections, two tests, one set of strategies? That's right—the SAT Writing and Language section and ACT English section are virtually the same test. So what does that mean? If you're still undecided between the SAT and ACT, know that you can still use our proven strategies and be confident that they will be put to good use, regardless of what testing path you take.

1. Learn and memorize the top grammar rules

An absolute must. In particular, those regarding the ways in which you join sentences are crucial. You may be concerned that your school didn't focus on English grammar rules. It's okay—at least in the early going, you will be surprised at how effective your ear is at identifying proper grammatical structure. However, make no mistake: there will be times when the test maker intentionally tries to mislead you. As a result, you can always plan to eliminate wrong answers based on those that "offend your ear," but when it comes to selecting the right one, you'll need those rules. Let your intuition guide the way, as long as you corroborate that innate ability with what's proven.

2. Classify the questions into grammar categories

Maybe the most important strategy of all! Knowing the rules only goes so far—you have to know when each rule is being tested. Typically, the answer choices will be of help here. As you take initial practice tests, get in the habit of writing down the grammar category tested on each question, along with your answer. Just mark up the question types by the side of each problem. When you are finished with the test, look back through your notations. This will give you a good sense of how many questions are asked of each grammar type. The more you do this, the more you will start to see that each test has very similar proportions of question types. You will also probably see a pattern emerging. Pay attention to where your errors are and address this area. When you take subsequent practice tests, scan each section for this question type. Then go forth and conquer.

3. Don't worry about terminology

You will not be tested on words like "gerund" and "appositive." If you know that an independent clause is just a full sentence, you are well on your way.

Pro Tip: In our experience, almost everyone is nervous about having correct grammar. If in doubt, ask yourself, how would I say it out loud? In general, our spoken English is usually more grammatically correct than our written English.

4. Read scholarly, copy-edited work

As you do, look to identify the proper use of grammar rules in action. "Why is that comma there? Is it separating an independent and dependent clause? Is it kicking off a nonessential clause?" Check out a few articles on the front page of major newspapers (New York Times, Wall Street Journal, The Washington Post) and look at how the pros handle commas—we know it's painful, but it's immensely helpful. Also, learn to trust your ear. As we mentioned at the beginning of this section, our spoken English is often more grammatically correct than our written English. If it sounds like you need to pause, you probably need a comma.

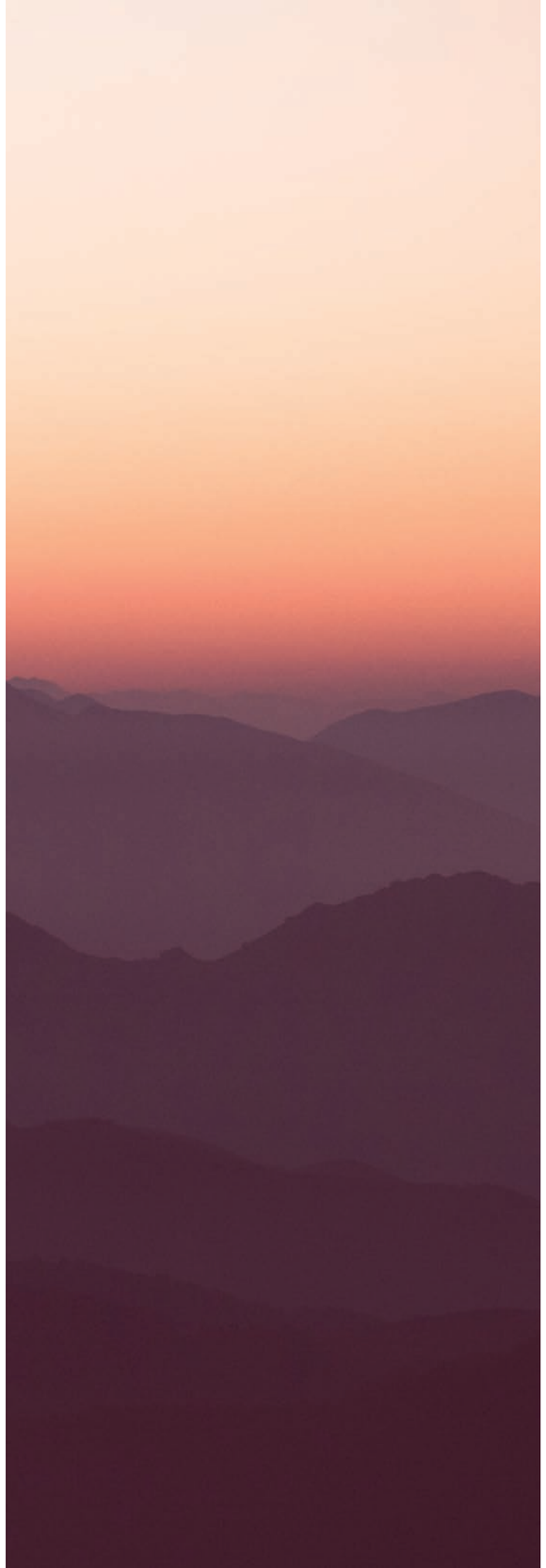
5. Beware of no change on rhetorical questions

The rhetorical questions, constituting 35 out of 75 ACT English questions and 20 out of 44 SAT Writing and Language questions, will ask you to evaluate the author's ability to accomplish certain goals in his/her/their writing. It's very important to note that

most of these answer choices will be grammatically correct. As such, students have the tendency of picking NO CHANGE, even though it might not answer the question directly. Make sure your answer is very directly addressing the problem, and answer accordingly.

Note: This is not to say that the answer is never NO CHANGE, but rather that students tend to pick it disproportionately.

You may be wondering what exactly is a rhetorical question and how can I identify them on the exams? In short, any question that asks "the author wants to convey that...." or "the author is planning on adding the following sentence to the passage..." Basically, anything where the question is about the content of the passage rather than the mechanics of the question.



4 ACT Reading & Science

Why ACT Reading and Science together? Because these sections are extremely similar. In fact, thinking of the ACT Science section as a reading comprehension test is a great way for students to get in a good frame of mind before taking the exam. Both sections are all about moving very quickly—sometimes skipping over the reading entirely—and gathering simple information from short passages. Both of these sections are also very teachable, so if your scores are currently a little underwhelming, don't fret! Increases will come.

READING

1. Questions first

We cannot stress this enough. For some test takers, this section is not nearly as difficult as SAT Reading, but the time crunch can be overwhelming. (Remember: step on it!) Regardless of whether you choose to annotate or not, having the questions in your head as you read will make you feel more purposeful.

2. According to… the passage indicates…

Questions that include these words will have the answer choices directly, explicitly in there. Word for word. “The Passage states…” questions will also be fairly explicit, but not necessarily verbatim. Find those answers in the passage. Do not go from memory. Always try to point to the place in the passage that shows your evidence.

3. The wrong answers will be wrong

As in, really wrong. Much more so than on the SAT. Actively look to cross out “garbage” in the answer choices until you have the least wrong answer. It may seem basic, but physically crossing out the “garbage” will literally help you see the right choice.

4. Be done with the passage in four minutes

You have about eight and a half minutes per passage here, which is fast. If you read the questions and then the passage itself in four minutes, you’ll leave yourself enough time to answer every question, even if it means having to skim.

Pro tip: Our biggest tip on the ACT Reading is skedaddle: move it or lose it! Move as fast as you can without losing your ability to comprehend what you are reading. Go, go, go!

5. Complete each paired passage individually

For the questions that ask you to compare both passages, your sequence should be as follows:

i. Read Passage A questions
ii. Read Passage A
iii. Answer Passage A questions
iv. Read Passage B questions
v. Read Passage B
vi. Answer Passage B questions
vii. Answer remaining questions

SCIENCE

1. Learn the different types of passages & timing strategies

- **Data Representation** are almost exclusively data without any headings. There are two to three of these, and students should allot themselves five minutes for each.
- **Research Summary** have headings that include, "Experiment 1, Experiment 2…" or "Study 1, Study 2…" Give yourself six minutes for these two to three passages.
- **Conflicting Viewpoints** have headings that include, "Scientist 1, Scientist 2…" or "Student 1, Student 2." There is exactly one of these. Allot yourself seven minutes to complete it.

2. Jump right to the first three questions

For Data Representations and Research Summaries, this strategy is a huge time saver and extremely effective. The first three questions on every passage (aside from Conflicting Viewpoints) will be exclusively graph, table, or logic-based and will not require any understanding of the passage itself.

3. Map the passage

When it comes time to mark the passage, pay attention to:

- Graph titles and identifiers
  e.g., Figure 1, Figure 2, along with actual titles
- Axes labels and scales
- Table headings
- Equations
- Trends in both tables and graphs
  e.g., … as one variable increases, the other…

This will be where 80-90% of the questions on this section come from.

4. Conflicting viewpoints: read every word

It’s important to understand the key distinctions in the viewpoints fully, so read each viewpoint actively and, ideally, characterize that viewpoint in the margin with a very brief annotation. This will ultimately save you time and force yourself to assess your understanding. What's implied? You do not have to read every word of the Data Representation and Research Summary passages. In fact, in many instances, you will not have to read any of the text. As a general rule, read those passages as needed. Do not read them before jumping down to the questions, as it will only confuse you.

5. You don’t need to be “a science kid”

As you may have heard, outside information is only a moderate requirement on this test. Kinetic and Potential Energy, pH, Chemical Equations, Punnett Squares, and Phases of Matter all come up fairly often. Know these, along with other basic biology, physics, and chemistry terms, but certainly do not study science in preparation for this test.

5 ACT Math

The ACT Math section is often the most challenging for students, as most of your score increases will come from sheer knowledge accumulation. In fact, in recent years the test has actually gotten harder, testing several more advanced topics than the SAT. That said, the simple questions are still very simple, and the patterns in the more difficult questions are undeniable. Our strategies below will help you make sense of this test, and with practice, you will undoubtedly see increases.

1. Think in 'mini-tests'

Questions 1-30 constitute your easy, 20-25 minute test. Questions 31-50, your 20-minute, medium-level test. Questions 51-60, your final, difficult test. If you allot yourself a maximum of two incorrect answers on your first mini-test, three to five on your second, and three to five on your third, you are on your way to a 30. Believe that it is doable, because it is!

2. Understand mistakes before moving forward

It should go without saying, but as you study, do not cheat yourself. Understand your errors fundamentally. Ask yourself, "Would I be able to teach this particular question to a classmate in two+ ways?" If not, stick with it until you can. Get the most out of every practice test by addressing every issue involved in incorrect answers. A practice test is not over until you have reviewed and mastered all of your problem areas.

3. Practice programs

Students go crazy on this test with calculator programs. They can be extremely helpful, but they can also be very confusing and overwhelming. If you're going to download programs, make sure you are as proficient as possible beforehand.

4. Puzzle approach

Think of these problems as puzzles or riddles, rather than straightforward math problems. When you're solving a logic puzzle (jigsaw, crossword, word jumbles, mazes, etc.), you don't just stop and panic after your first attempt fails, do you? Apply that logic here: If you get stuck in one way, try another, and another, and another. There are multiple ways to do every single problem on this test, so let's see if you can come up with a Plan A, B, and C for given problems. Specifically:

In Triangle ABC, AB = 10, BC = 14, and m ∠B = 30°. Find the area of the triangle.

A) 12
B) 28
C) 35
D) 70
E) 80

Now, the most direct way to solve this problem is by knowing the trigonometric area of a triangle formula, **$A = \frac{1}{2}ab\sin(C°)$**. However, if that direct Plan A slipped your mind, you might try Plan B: drawing it out.

When you do draw things out, it is exceedingly important that you draw them to scale. When you do, you find that in this particular problem, the height appears to be slightly less than 10. Applying our traditional area formula, **$A = 12\,(base)\,(height)$**, should then give us an area that's at least relatively close to C (35).

Lastly, a Plan C might include working backwards and eliminating implausible answer choices, estimating with 30-60-90 triangles, or using a calculator program (read: Strategy 3). The choice(s) are yours.

5. Anticipate silly mistakes

For those particularly prone to careless errors, get in the habit of thinking, "What silly mistake could I make here?" Missing negative signs, distributing poorly, solving for the wrong unit—all of these are typical examples, but certainly not exhaustive. Those sneaky test makers have incorporated a potential careless pitfall in every problem. Identify them and avoid.

About

Carnegie Prep draws on 35 years of experience working with students and families in Fairfield and Westchester counties and beyond. Offering both one-on-one tutoring and courses, Carnegie Prep has the unique ability to meet the needs of diverse learners and help all students reach their potential.

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