

Introduction

Overview of How to Use the SATisfy SAT Prep System

Message to Students

SATisfy aims to give you accessible and effective information about the SAT that you can apply to the test immediately and see results. We accomplish this by showing you exactly what is in the SAT, how to approach the SAT, and how to effectively manage all your newfound information. This is not a magic system that will automatically grant you the ability to achieve a 1600. This system is designed to be used in conjunction with practice. If you take the time to apply the information in this course with diligent practice, hopefully you will be able to increase your score above the top 3% of scorers, just like Caleb Hough (That's me).

This course is designed to save you the time and headache of discovering the in-and-outs of the SAT and allows you to simply take the time to apply them. I suggest practicing the strategies in this system for forty hours prior to your test day, and taking 2-3 practice tests, for sufficient results.

I wish you all the best and good luck!

Sincerely,

Caleb Hough at SATisfy LLC

A handwritten signature in black ink, appearing to read 'Caleb Hough', written in a cursive style.

Overview of the System

Pace

Practice as you go. Below you will see a checklist of steps you need to complete. Follow the checklist in order and do not move on until you have completed the first task.

When working through this course it is important to retain the information you learn. To accomplish this, cycle through the subjects when you practice. One day practice math, the next reading, and the next writing. This will keep you from getting burnt out with homework, while also retaining what you learned.

What the System does not include

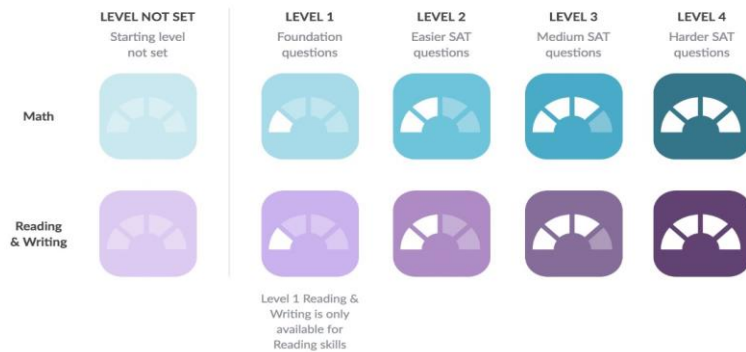
While I did try to include as much value as possible in this course there are some things that it does not cover. I have assumed that you have taken up to junior level high school classes, and understand the basic concepts discussed in those classes. This course will give no information on concepts, or foundational information about grammar and mathematics. Lastly, this course gives no personalization towards specific students. Feel free to make changes where you need to in the course. If you feel like you need personalization or in person tutoring, we also offer affordable services that can cater towards your specific needs.

How to use the System:

I want to break this down into three main steps: observe, learn, and execute. Observe the necessary steps listed below on the Checklist of Success, learn about the SAT through the processes in this book, and execute the processes through practice. This FREE system is designed to be used in congruence with other free sources like Khan Academy.

Checklist of Success

- Take a placement test: <https://www.khanacademy.org/mission/sat/exams>
- Fill out Focus Form (see book 5)
- Placement Test Guide (see below)
- Read through this Course and understand its contents.
 - Reading
 - Writing
 - Math
- Practice problems (Khan Academy Practice)
 - Worked all missed problems on “Focus Form” until 4/5 problems are correct on level 4 of practice on Khan Academy



- One final review of strategies.
- Review notes from missed problems.
- Take the second placement test.

Repeat

Placement Test Guide

- Take a placement test: <https://www.khanacademy.org/mission/sat/exams>
- Fill out Focus Form (see book 5)
 - Complete test
 - Select the review test option.
 - Click through the answers and put a tally for each problem you missed.
 - Each time you miss a problem, make a note about why.
 - Fill out the information at the bottom of the form.
- Answer the following questions:
 - Reading
 - Did you forget what you were reading halfway through reading it?
 - Did the passage confuse you?
 - Did you misunderstand the tone of the passage?
 - What was the direction of the passage? (ex. Started with hypothesis ended with conclusion)
 - Did you read the questions correctly?
 - Why did you miss the answer?
 - What sentence supports the correct answer?
 - What kind of problem did you get incorrect most often?
 - Writing
 - Why did you miss the problem?
 - Was there a pattern to your mistakes?
 - How can you avoid making careless errors again?
 - What concepts do you need to review? (punctuation, reading comprehension, etc.)
 - Math
 - Were you pressured for time?
 - Did the question confuse you?
 - Where did you make the errors?
 - How can you avoid the same mistakes in the future?
 - What are the exact concepts that you struggled with?
 - Where can you go to brush up on these topics?
 - What steps WILL you take to brush up on these topics?

Focus Form

Problem type:	Missed questions	Strategies
HEART OF ALGEBRA		
Solving linear equations and linear inequalities		Get all components on one side, simplify, solve
Interpreting linear functions		Recognize formula, rearrange, compare
Linear equation word problems		Take one part at a time, compare answers as you go
Linear inequality word problems		Look at the language, eliminate answers, write out
Graphing linear equations		positive or negative slope, eliminate, PITA, compare
Linear function word problems		Find the important letters first, match to words, solve
Systems of linear inequalities word problems		Look for key phrases, write problem, eliminate answers
Solving systems of linear equations		Get all components one side, simplify, substitute, solve
Systems of linear equations word problems		Create two linear equations, simplify to 1 like term, solve
PASSPORT OF ADVANCED MATHEMATICS		
Solving quadratic equations		Denominator=whole number, factor, simplify
Interpreting nonlinear expressions		PITA, memorize the role of each part of the equation
Quadratic and exponential word problems		Read carefully, write the problem out 1 step at a time
Manipulating quadratic and exponential expressions		Apply appropriate formula, eliminate, simplify
Radicals and rational exponents		Familiarize with rules, reduce, combine like terms, simplify
Radicals and rational equations		Square both sides, standard format, simplify, check
Operations with rational expressions		Factor, find the Least common denominator, simplify
Operations with polynomials		Common denom., factor out, add like terms
Polynomial Factors and graphs		Find the coordinates before you look at answers, PITA
Nonlinear Equation graphs		Find the form of the function, find the coordinates, match
Linear and quadratic systems		Substitute, reduce, factor, solve
Structure in expressions		Plug in formula, simplify, compare answers as your going
Isolating quantities		Take one step at a time, divide, subtract, add to simplify
Function notation		Make sure you are substituting correctly, simplify
PROBLEM SOLVING AND DATA ANALYSIS		
Ratios, Rates, and proportions		Find the ratio, create a fraction, convert, find the solution
Percents		Solve one percent before moving on to the next
Units		Write out units, make sure they cancel, multiply
table data		Established compared terms, make into fraction, solve
Scatterplots		read question, find coordinates, plug in
Key features of graphs		Read carefully, compare answers, check twice, guesstimate
Linear and exponential growth		Plug in the answers, compare
Data inferences		Mentally graph confidence, compare info, reduce, solve
Center, spread, and shape of distributions		Carefully read numbers on graph, write out fully, use calc
Data collection and conclusions		Read answers first, eliminate as you go
ADDITIONAL TOPICS IN MATH		
Volume word problems		Write out formula, substitute into equation, simplify
Right triangle word problems		Draw out, find components, one step at a time, simplify
Congruence and similarity		Read question, take one step at a time
Right triangle trigonometry		Use pathagoreon theorem, or sin, cos, tan
Angles, arc lengths, and trig functions		Recognize necessary formula, plug in, simplify
Circle theorems		Apply pythagorean theorem
Circle equations		Write down formula, plug in coord, PITA
Complex Numbers		Multiply, plug in, simplify, compare

Focus Form

Problem type:	Missed questions	Strategies
READING		
Reading: Science		*See subcategories and general strategies
Reading: Literature		*See subcategories and general strategies
Reading: History		*See subcategories and general strategies
Reading: Social Science		*See subcategories and general strategies
Writing: Argument		*See subcategories and general strategies
Writing: Informative		*See subcategories and general strategies
Writing: Narrative		*See subcategories and general strategies
WRITING		
Effective language use: Precision and concision		Plug in the answers, read only whats necessary
Effective language use: Style and tone		Understand the question, plug in the answers
Effective language use: Syntax		Skip reading original, start with shortest answer
Grammar: End-of-sentence punctuation		correctly use: . ? !, Watch out for pronoun clarity
Grammar: Within-sentence punctuation		Know the correct use of ; : -
Grammar: Sentence boundaries		Know the correct use of ; : -
Grammar: Subordination and coordination		cover up underlined portion, what sounds natural? PITA
Grammar: Parallel structure		Find action verbs, compare to answer, PITA, sound out
Grammar: Modifier placement		Find the adjective and noun, rearrange
Grammar: Shifts in verb, tense, and mood		Look at the tense of the sentence, PITA, read aloud
Grammar: Pronoun clarity		Find the 2 subjects, choose a precise/appropriate answer
Grammar: Pronoun agreement		Actively look for the subject, match the tenses
Grammar: Possessive determiners		Only read the necessary part, read out loud, match tense
Grammar: Subject-verb agreement		Read out loud to see what sounds right, compare tenses
Grammar: Noun agreement		Underlined noun must equal the tense of the subject(s)
Grammar: Frequently confused words		Practice (Common: accept/except, ensure/insure, etc)
Grammar: Conventional expression		Plug in the answer, read out loud
Grammar: Logical comparison		Determine terms that are being compared, PITA
Grammar: Possessive nouns and pronouns		Find nouns and pronouns, apply ' rules, PITA, sound out
Grammar: Items in a series		Know how and when to use a comma
Grammar: Nonessential and parenthetical elements		Understand the correct use of: , ; : () -

Reading Score:	___ of 52	Percentage: ___
Writing Score:	___ of 44	Percentage: ___
Math No-Calculator Score:	___ of 20	Percentage: ___
Math Calculator OK score:	___ of 38	Percentage: ___

I performed the worst in which area: _____.

Book One

Reading

Introduction

This book will take you through three sections regarding SAT reading: Simplifying Structure, Order of Operations, and Success in Strategies. This order is intentional.

We begin this book with Simplifying Structure to give you a clear idea of what “SAT reading” entails. This section can be broken down into the following components: time, problem types, tone, answers, and how the relationship of these aspects work together.

Once you understand WHAT the test is, you will learn HOW to excel in the test. Order of Operations shows you exactly how to approach the reading section. These steps combined with a clear understanding of WHAT SAT reading is, create a powerful duo that will guide you through the passages. However, it is missing some vital information.

Success in Strategies aims to fill the holes that the other two sections do not address. It will discuss rephrasing questions, inferring answers, optimizing improvement, and refining efficiency throughout the section.

At the end of the book, you will receive a checklist of tangible steps you can implement to improve your score. Let’s get started!

Simplifying Structure

Time and Text

The reading section consists of 52 different questions spread across 5 different reading passages. This gives you approximately 13 minutes per passage. Every passage will include three parts: a title, the body paragraph, and the questions.

The title might include information on the Author, context on the body paragraph, dates, speakers, or citations. Additionally, the title may hint on the tone of the passage: “Money can’t buy love”, “How Scientific Innovation, Increased Efficiency, and Good Intentions Can Make Our Energy and Climate Problems Worse”, “How Technology is Destroying Jobs”. These titles either hint at the point of the passage or show the author’s possible bias toward a subject. A quick but careful examination of the title before reading the passage is very beneficial.

The body paragraph has a range of different possible topics. However, the College Board narrows the topics down to 4 main groups: literature, history, science, and social science. It is important to note that every one of these topics will occur once throughout the test, and there are some important consistencies to consider. Firstly, literature will always be the first passage on the test. Secondly, you might have noticed that there are 5 passages and only 4 topics, this means that there will be one literature passage, two science passages, and two History/social studies passages. Students often struggle more with one topic than another, so be familiar with your strong areas and your weak areas so you are ready for whatever the SAT throws at you. If you struggle with science passages, focus on mastering those passages first.

When reading through the passages you might be tempted to treat it like any normal book. Instead, treat it like a treasure hunt. You want to read the passage actively not passively. What does reading actively mean? Remember this: it is Evidence-Based Reading. All the answers are supported by a text in the passage. The College Board will try to trick you with questions that sound like they are asking your opinion. They are not. Reading actively simply means answering questions with direct evidence from the passage.

Tone

You might be asking yourself: How do I know what to look for? This is where the tone of the topics come into play.

- Tone: The feeling, bias, direction, or emotion omitted in the passage

Literature: make sure you are paying attention to the emotion that is being shown and who is showing that emotion. Is it the Author? How did they feel? What was X’s reaction to Y? Additionally, you want to understand who the narrator is and what their role is in the story (If they have one at all).

History and Social Science: make sure you note what the author/speaker is trying to address, how they are addressing it (rhetorical questions, creating analogies, etc.), and the conclusion that the author/speaker is suggesting.

Science: Note the direction of the passage (does it start with a hypothesis and finish with a conclusion? etc.). Also note small details asked in questions (often the questions will have small but important differences that will change the answer). Lastly, pay close attention to the graph and make sure you read it correctly.

Keeping these general concepts in mind while reading through the passage will make a drastic difference in your text comprehension as well as your ability to answer questions correctly.

Problem Types

Throughout the reading section there are 3 main types of questions that you will encounter: vocabulary questions, line reference questions, and general passage questions.

Vocabulary questions are any type of question that asks you to substitute in a word. An Example would be:

“As used in line 1 and line 55, “directly” most nearly means”.

- A. Frankly
- B. Confidently
- C. Without mediation
- D. Without precision

An example of something that is not a vocabulary question (but is often confused as one) would be:

“the authors’ use the words, “exact,” “specific,” and “complement” in lines 39-41 in the final paragraph functions mainly to:”

- A. Confirm that the nucleotide sequences are known for most molecules of DNA.
- B. Counter the claim that sequences of bases along a chain can occur in any order.
- C. Support the claim that the phosphate-sugar backbone of the authors’ model is completely regular.
- D. Emphasize how one chain of DNA may serve as a template to be copied during DNA replication.

Vocabulary questions are only questions that need no outside context except for the sentence before and after. You can easily pick them out by looking at the answers and seeing one or two words, instead of whole sentences. Additionally, vocabulary questions are used to substitute singular words, not ask questions about tone or the general passage.

The second type of questions are line reference questions. There are multiple types of line reference questions. It can be simplified like this: Line reference in the question, or line reference in the answers.

Example 1: Line reference in the question

“In the second paragraph (lines 10-16), what do the authors claim to be a feature of biological interest?”

- A. The chemical formula of DNA
- B. The common fiber axis
- C. The X-ray evidence.
- D. DNA consisting of two chains.

Remember: This is “Evidence-based Reading a Writing” so the answer will be in the passage.

Something important to note about these types of questions. There is a pattern to the answers. There are generally 4 types of answers to look for here. One answer will be too broad, one will be too narrow, one will not be related at all to the question, and one will be right. Generally, the options will be narrowed down to two answers (sometimes three if it is a hard question). The narrow answer might seem right but will have one small tweak that will make the answer wrong. Also, you want to select the answer that is the MOST right. You will learn about this idea later in the Success in Strategies chapter.

Example 2: Line reference in the answer

Before you look at the example you must know that the questions that have the line references in the answers are also referred to as two-part questions. The first part will be a normal question, the second part will ask you to give evidence for the answer to the first question.

“Which reaction does Akira most fear from Chie?”

- A. She will consider his proposal inappropriate.
- B. She will mistake his earnestness for immaturity.
- C. She will consider his unscheduled visit an imposition.
- D. She will underestimate the sincerity of his emotions.

“which choice provides the best evidence for the answer to the previous question?”

- A. Line 33 (His voice . . . refined)
- B. Lines 49-51 (You . . . mind)
- C. Lines 63-64 (Please . . . proposal)
- D. Lines 71-72 (Eager . . . face)

To get the best results for these problems here are the steps I suggest:

1. Read the question (but not the answers) to the first question.
2. Read through the lines until you find the line that talks about the first question.
3. Select the line that talks about the first question as the correct answer.
4. Read and choose the correct answer for the first question.

These steps are fairly bullet proof. It is also imperative that you have sufficient reading comprehension so that you may understand the harder passages and select the correct lines. I will give more details on this idea in the Success in Strategies chapter.

General Passage questions:

General passage questions are everything else. These questions might include questions on the main point of the passage, ask about specific details of the passage, or ask about the tone. They are the most difficult question to answer because you are not given a specific line to reference, you must find the answer. Luckily, there are some tips I can give you to help you hunt for the answers.

1. Have GREAT reading comprehension.

Understanding what is happening in the passage is the most essential part of the reading section. There are no strategies that allow you to bypass reading the passage. Read the passage slowly if you need to. Do not move on until you understand the sentence you just finished reading.

2. The questions are generally in order with the passage.

This allows you to answer the questions as you go. (More information in the order of operations chapter.)

3. If a question is talking about the entire passage, answer it at the end.

Questions of this nature might be framed like, “Which choice best describes what happened in the passage?” This is where understanding the flow of the passage will come in handy.

Now that you have learned what to expect from SAT reading, it is time for you to learn strategies to optimize your time and overall score.

Success in Strategies

Strategies are like the icing on the SAT cake. It is the part that so many people spend forever trying to figure out and what can make or break the test. Throughout this chapter I will give you the strategies that I found to be the most effective. I will further extrapolate on the application of these strategies in order of operations, so if something does not make sense stay with me. These strategies will take some practice to fully understand and master. Without further ado let's hop right into the strategies.

1. Read the title.

We covered this already, but I wanted to hammer it home. Reading the title will help you understand the passage before you read it. It is a useful tool that many students do not use. When reading the title, take note of the Author's name, the title and its possible bias, and the date.

2. Change the statements to questions, then look for the answers in the passage.

Example:

"In the passage, Akira addresses Chie with. . ."

Change to:

"What does Akira address Chie with?"

3. Annotate, annotate, annotate.

This is the BEST tip I can give you. Mark important phrases in the text, put line references in brackets, and underline vocabulary. This is going to save you all the time from flipping back and forth from question to answer. It will also allow you to keep track of where questions will be in the passage. This is the focus of the Order of Operations and is ESSENTIAL that you apply these steps. More information will be given in the Order of Operations.

4. Reading comprehension

If you have trouble understanding what passages are saying, or you read something and then immediately forget what you just read, then you need to improve your reading comprehension. Speed is an essential part of this test, and you will benefit from processing information quickly. If you struggle with reading comprehension, all you need to do is practice reading more advanced texts. I suggest reading Shakespeare, any book with old English, KJV version of the Bible, or science studies. Fully understand what a sentence is saying before you move on then summarize every paragraph when you finish. This is a great skill to learn, and you will benefit greatly from it. I suggest doing this for 30 minutes a day until you have sufficiently improved your reading.

5. Never infer anything.

Remember, this is “Evidence-based Reading and Writing” so every answer will be somewhere in the passage. There will be questions that tell you to infer an answer. A common example is comparing two passages. Questions are often phrased, “How would person A, respond to what person B said in their passage?” I promise “College Board” is not asking for your opinion. You need to look for which answer is used in the other passage. If multiple answers are mentioned in the other passage, which one is the MOST right? In other words, which answer matches the tone the most accurately?

6. Choose the MOST right answer.

Often it seems like you are at a crossroads between two or more answers. When this happens, simply ask yourself: Which answer is the MOST right?

7. Apply for accommodation if you can.

If you have dyslexia or ADHD or another type of learning disorder, it is smart to apply for accommodation. Accommodation can include: 1.5x-2.0x time on your test, additional breaks, assistive technology, reading and seeing accommodation and more. If you are taking the test at your school, the school normally administers accommodation, however if you are taking it at a separate testing facility, a form will have to be filled out on the College Board’s website 7-weeks in advance.

8. Circle the answer when you see it.

Applying this strategy hits two birds with one stone. It allows you to be sure of your answer, and it does not allow you to move on until you find the answer in the passage.

9. Fill in the scantron at the end.

Leave 2 minutes at the end to fill in the scantron instead of trying to do it as you go. This will save you time and mental energy.

Now that you have learned about the structure and strategies for the reading portion, I want to show you how to apply what you have learned with tangible steps in the reading portion.

Order of Operations

1. Read the title.

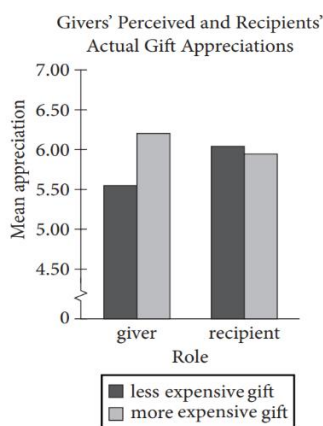
Questions 1-10 are based on the following passage.

This passage is from Lydia Minatoya, *The Strangeness of Beauty*. ©1999 by Lydia Minatoya. The setting is Japan in 1920. Chie and her daughter Naomi are members of the House of Fuji, a noble family.

Just from the title we can see the passage will have something to do with a mother and a daughter from a noble family and, “The Strangeness of Beauty”. It was written 79 years after the event occurred by a

woman named Lydia Minatoya. At this step you should make a mental note of what the topic of the passage is (Literature, History, Social Science, Science) and the different tones that are associated with those passages.

2. Look through the questions and mark line reference questions.



11

The authors most likely use the examples in lines 1-9 of the passage (“Every . . . showers”) to highlight the

- regularity with which people shop for gifts.
- recent increase in the amount of money spent on gifts.
- anxiety gift shopping causes for consumers.
- number of special occasions involving gift-giving.

12

In line 10, the word “ambivalent” most nearly means

- unrealistic.
- conflicted.
- apprehensive.
- supportive.

13

The authors indicate that people value gift-giving because they feel it

- functions as a form of self-expression.
- is an inexpensive way to show appreciation.
- requires the gift-recipient to reciprocate.
- can serve to strengthen a relationship.

14

Which choice provides the best evidence for the answer to the previous question?

- Lines 10-13 (“Many . . . peers”)
- Lines 22-23 (“People . . . own”)
- Lines 31-32 (“Research . . . perspectives”)
- Lines 44-47 (“Although . . . unfounded”)

15

The “social psychologists” mentioned in paragraph 2 (lines 17-34) would likely describe the “deadweight loss” phenomenon as

- predictable.
- questionable.
- disturbing.
- unprecedented.

16

The passage indicates that the assumption made by gift-givers in lines 41-44 may be

- insincere.
- unreasonable.
- incorrect.
- substantiated.

Questions 11-21 are based on the following passage and supplementary material.

This passage is adapted from Francis J. Flynn and Gabrielle S. Adams, "Money Can't Buy Love: Asymmetric Beliefs about Gift Price and Feelings of Appreciation." ©2008 by Elsevier Inc.

Every day, millions of shoppers hit the stores in full force—both online and on foot—searching frantically for the perfect gift. Last year, Americans spent over \$30 billion at retail stores in the month of December alone. Aside from purchasing holiday gifts, most people regularly buy presents for other occasions throughout the year, including weddings, birthdays, anniversaries, graduations, and baby showers. This frequent experience of gift-giving can engender ambivalent feelings in gift-givers. Many relish the opportunity to buy presents because gift-giving offers a powerful means to build stronger bonds with one's closest peers. At the same time, many dread the thought of buying gifts; they worry that their purchases will disappoint rather than delight the intended recipients.

Anthropologists describe gift-giving as a positive social process, serving various political, religious, and psychological functions. Economists, however, offer a less favorable view. According to Waldfogel (1993), gift-giving represents an objective waste of resources. People buy gifts that recipients would not choose to buy on their own, or at least not spend as much money to purchase (a phenomenon referred to as "the deadweight loss of Christmas"). To wit, givers are likely to spend \$100 to purchase a gift that receivers would spend only \$80 to buy themselves. This "deadweight loss" suggests that gift-givers are not very good at predicting what gifts others will appreciate. That in itself is not surprising to social psychologists. Research has found that people often struggle to take account of others' perspectives—their insights are subject to egocentrism, social projection, and multiple attribution errors.

What is surprising is that gift-givers have considerable experience acting as both gift-givers and gift-recipients, but nevertheless tend to overspend each time they set out to purchase a meaningful gift. In the present research, we propose a unique psychological explanation for this overspending problem—i.e., that gift-givers equate how much they

spend with how much recipients will appreciate the gift (the more expensive the gift, the stronger a gift-recipient's feelings of appreciation). Although a link between gift price and feelings of appreciation might seem intuitive to gift-givers, such an assumption may be unfounded. Indeed, we propose that gift-recipients will be less inclined to base their feelings of appreciation on the magnitude of a gift than givers assume.

Why do gift-givers assume that gift price is closely linked to gift-recipients' feelings of appreciation? Perhaps givers believe that bigger (i.e., more expensive) gifts convey stronger signals of thoughtfulness and consideration. According to Camerer (1988) and others, gift-giving represents a symbolic ritual, whereby gift-givers attempt to signal their positive attitudes toward the intended recipient and their willingness to invest resources in a future relationship. In this sense, gift-givers may be motivated to spend more money on a gift in order to send a "stronger signal" to their intended recipient. As for gift-recipients, they may not construe smaller and larger gifts as representing smaller and larger signals of thoughtfulness and consideration.

The notion of gift-givers and gift-recipients being unable to account for the other party's perspective seems puzzling because people slip in and out of these roles every day, and, in some cases, multiple times in the course of the same day. Yet, despite the extensive experience that people have as both givers and receivers, they often struggle to transfer information gained from one role (e.g., as a giver) and apply it in another, complementary role (e.g., as a receiver). In theoretical terms, people fail to utilize information about their own preferences and experiences in order to produce more efficient outcomes in their exchange relations. In practical terms, people spend hundreds of dollars each year on gifts, but somehow never learn to calibrate their gift expenditures according to personal insight.

This is what your passage should look like after step 2. There are a couple of notable points in the previous images.

- I want you to see how many questions have line references in them.
 - How much of the text includes line references.
 - o Marking the line references keeps you from moving back and forth from question to passage and will save you time.
 - o This allows you to only read the passage once.
3. Do the vocabulary questions first.

You can knock out the vocab questions first and quickly. You generally only need to read the sentence before and after. Plug in all the answers and see which one works the best.

4. Read through the passage, answer the remaining questions in order.

Now you have completed all the vocab questions, start reading the passage from the beginning. Answer the questions as you go and when you find the answer in the text circle it.

At the end of the section this is what your passage should look like:

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Anthropologists describe gift-giving as a positive social process, serving various political, religious, and psychological functions. Economists, however, offer a less favorable view. According to Waldfogel (1993), gift-giving represents an objective waste of resources. People buy gifts that recipients would not choose to buy on their own, or at least not spend as much money to purchase (a phenomenon referred to as "the deadweight loss of Christmas"). To wit, givers are likely to spend \$100 to purchase a gift that receivers would spend only \$80 to buy themselves. This "deadweight loss" suggests that gift-givers are not very good at predicting what gifts others will appreciate. That in itself is not surprising to social psychologists. Research has found that people often struggle to take account of others' perspectives—their insights are subject to egocentrism, social projection, and multiple attribution errors.

What is surprising is that gift-givers have considerable experience acting as both gift-givers and gift-recipients, but nevertheless tend to overspend each time they set out to purchase a meaningful gift. In the present research, we propose a unique psychological explanation for this overspending problem—i.e., that gift-givers equate how much they spend with how much recipients will appreciate the gift (the more expensive the gift, the stronger a gift-recipient's feelings of appreciation). Although a link between gift price and feelings of appreciation might seem intuitive to gift-givers, such an assumption may be unfounded. Indeed, we propose that gift-recipients will be less inclined to base their feelings of appreciation on the magnitude of a gift than givers assume.

Why do gift-givers assume that gift price is closely linked to gift-recipients' feelings of appreciation? Perhaps givers believe that bigger (i.e., more expensive) gifts convey stronger signals of thoughtfulness and consideration. According to Camerer (1988) and others, gift-giving represents a symbolic ritual, whereby gift-givers attempt to signal their positive attitudes toward the intended recipient and their willingness to invest resources in a future relationship. In this sense, gift-givers may be motivated to spend more money on a gift in order to send a "stronger signal" to their intended recipient. As for gift-recipients, they may not construe smaller and larger gifts as representing smaller and larger signals of thoughtfulness and consideration.

The notion of gift-givers and gift-recipients being unable to account for the other party's perspective seems puzzling because people slip in and out of these roles every day, and, in some cases, multiple times in the course of the same day. Yet, despite the extensive experience that people have as both givers and receivers, they often struggle to transfer information gained from one role (e.g., as a giver) and apply it in another, complementary role (e.g., as a receiver). In theoretical terms, people fail to utilize information about their own preferences and experiences in order to produce more efficient outcomes in their exchange relations. In practical terms, people spend hundreds of dollars each year on gifts, but somehow never learn to calibrate their gift expenditures according to personal insight.

11
12
13
14
15
16

*Writing the numbers is not an essential step, it is simply there to show you which text is associated with which answer.

This information is given to you to help you understand two things: What the test is, and the best way to approach it. With proper application and practice of this system and its strategies, you will be on your way to your SAT goals!

Summary

- Introduction that gave a roadmap of what you will learn.
- Time and Text which gave a basic structural breakdown of the reading section.
- Hidden differences of topics
- Different tones from passage to passage.
- An in-depth breakdown of the different types of problems in the reading section.
- A list of 9 different strategies and their applications.
- “Order of Operations” which takes all your new knowledge and compiles it into tangible steps on the test.

Book Two

Writing

Introduction

This book will take you through three sections regarding SAT writing: Simplifying Structure, Success in Strategies, and Reviewing Grammar Rules.

Simplifying Structure gives you a clear understanding of the types of questions you will see in the writing section. After giving an overall analysis of the structure of this section, it breaks the questions down into three main categories: Restructure questions, context questions, and questions about grammar rules. This section will then go in depth on the physical problem types you will encounter on the test.

Success in Strategies goes through a short list of strategies you can apply to the test to optimize for results. It is worth noting that this section relies heavily on question knowledge and understanding how to appropriately address questions. However, there are some tips I can give you that will help you accomplish this accurately.

Reviewing Grammar Rules simply shows a list of all grammar rules that will be applicable during this test. Covering topics like punctuation, parallel structure, modifiers, and more.

Simplifying structure

Time and Text

Being aware of the structure of the test can give you a better understanding of the test and what to expect going into it. The writing passage is the second section that you will encounter on the SAT and includes forty-four questions that must be completed in thirty-five minutes. There are four passages that each include eleven questions, which allows for 8.5 minutes per passage. There are four different types of passages that will appear in the writing section: Careers, History/Social Studies, Science and Humanities. Additionally, these passages have different narration styles. There is one narrative passage (story-like), one argumentative passage (persuasive), one informative passage (explaining something to the reader), and one additional passage.

In these passages there will be a selection of three main categories of questions: restructuring questions, context questions, and grammar questions.

Structure questions

Structure questions require you to correct issues in the format of the sentences. These questions come in several different forms: including or excluding a sentence (and why), rearranging a sentence in a paragraph, or substituting in a new sentence. Keep two things in mind with structure questions: the tone of the passage, and content of the passage.

A great way to measure the tone of the passage is to read the title. Unlike the reading passage, the writing titles are made of 2-3 words that hint at the tone, while still including information on the topic. A couple of examples are: “Whey to Go”, “Dark Snow”, “Coworking: A Creative Solution”, and “The Consolations of Philosophy”. The first option is lighthearted, the second is telling a story, the third is likely proposing a change, and the last is more serious.

When determining how to correctly structure these passages, you must understand the content that is in the passage. You must look at the macro-structure of the content and the micro-structure. Macro-structure defines where the passage started and where it is going. Micro-structure includes the small details that must be organized correctly.

The scientific method gives a good analogy of this concept. The macro-structure of the scientific method includes a question, a hypothesis, an experiment etc. The micro-structure of the scientific method would be the individual steps inside of the experiment. Micro is a subset of macro.

To accurately answer these problems, you must read enough of the passage to understand the macro-structure of the passage; you only need to read the specific details that are included in the question to understand the micro (the underlined portion, and maybe a sentence before and after).

Context questions

Context questions are questions that address specific words. All the information you need exists in the underlined portion, but also read a line or two before and after to understand the tense. Additionally, these questions work in congruence with grammar rules. It is important to understand and notice the tenses that are being used while working on these problems.

Grammar rules

Grammar rule questions require you to adjust words and punctuation to achieve the most accurate answer. You will be required to evaluate punctuation, modifiers, sentence fragments, parallel structure, tense, and word usage of different phrases. Learning the grammar rules are essential to the writing portion, lucky they are easy to learn and remember.

Success in Strategies

Read only what you need to.

In the writing section you only need to read the lines that pertain to the question. The error most students make is misinterpreting what they are supposed to read. You need to read enough to understand what the passage is about, the direction of the passage, and the specific information needed to understand the underlined portion. This means reading the title, and up to a paragraph before or after the underlined portion.

Read out loud and see if it sounds right.

Often a choice looks right in the text but will sound wrong when you say it. Read everything out loud to see which option sounds right. However, it is important to note that just because something sounds correct, does not mean that it is correct. So, it is important to understand proper grammatical structure and rules.

Plug in the answers, start with the shortest answer.

Plugging in the answers is a concept that can be used throughout the SAT. There is a way you can make this system more efficient in the writing section. There is a concept discussed on the SAT called “Precision and Concision” which essentially means saying everything that is necessary the shortest way possible. Because of this concept, we know that often the answer will be concise. Plugging in the shortest answer first will often allow you to refrain from plugging in all four multiple-choice answers.

Watch for repetition.

Often the SAT will add some sneaky repetition into the SAT that you might not notice so WATCH OUT. A good example would be, “Every year the annual Chinese parade brings in thousands of tourists to see the magical dragons and fancy fireworks.” In this sentence “every year” and “annual” mean the same thing and create repetition. If you are glazing paste a sentence it is possible to miss this. Repetition generally occurs in Structure Questions where there are large sentences to plug in and you might miss the repetition.

Understand basic grammar rules.

Understanding grammar rules is the cornerstone of the writing section. If you struggle with understanding concepts, this should be your number one priority.

Easiest to increase your score.

The writing section is the easiest section to increase your score. If you are a student who performed the worst in this section, put 90% of your focus into improving your writing score. The other 10% should only be allocated to other subjects only when you need a break from writing related subjects.

Grammar Rules

Independent Clause:

- A group of words that contains a subject and a verb and expresses a complete thought.
- Ex: Josh worked all day, but he was still unable to complete the project.

Commas:

- Use commas after introductory: clauses, phrases, or words that come before the main clause. Commas can also be used to separate nonessential elements apart from the rest of the sentence. Lastly, commas are used for: items in a series, nonrestrictive clauses, appositives, direct addresses, and direct quotations.

Semicolons:

- Semicolons are used between closely related independent clauses which are not joined by a coordinating conjunction.
- Ex: I order a cheeseburger for lunch; life is too short to count calories
- Ex: Martha has gone to the store; her sister has gone to play soccer.

Colons:

- A colon is used to give emphasis, present dialogue, introduce a list or a text, and clarify compositions.
- Capitalize the first letter following a colon only if it is a proper noun or the start of a complete sentence.
- Ex: I have a few favorite foods: chicken, broccoli, and rice.
- Ex: We knew who would lose: The Cowboys

Parentheses:

- Parentheses are used to enclose incidental or supplemental information. Also used to clarify, illustrate, or serve as a digression or afterthought.
- In context of the SAT, they are used to enclose parenthetical elements.
- Parenthetical element: a word or group of words that interrupts the flow of a sentence and adds additional (but nonessential) information to that sentence.

Dashes

- Use a dash to: set off material for emphasis (think the opposite of parentheses), and to break up dialogue.

Modifiers and Modifier Placement:

- Modifier: words, phrases, and clauses that affect and often enhance the meaning of a sentence.
- Ex: I am going to Sonic for a **cherry limeade** slushy.
- Modifier placement: assigning the correct modifier to the word that is modified.
- Make sure the modifier actually modifies the correct word in the sentence.

parallel structure

- Parallel structure: using a pattern of words to show that two or more ideas have the same level of importance.
- The black-necked Aracari is a small toucan with a red stripe across its **yellow belly**, a **healthy appetite for fruit**, and **has a large beak**.
- The black-necked Aracari is a small toucan with a red stripe across its **yellow belly**, a **healthy appetite for fruit**, and a **large beak**.

Tense:

- Tense: a set of forms taken by a verb to indicate the time (and sometimes also the continuance or completeness) of the action in relation to the time of the utterance.
- Ex: is, was, are, etc.

Logical comparison:

- Logical comparison: a sentence that makes a comparison that is structurally and grammatically correct.
- Ex: you have higher odds of being injured by a dog than a shark.
- You want to remember that while a question might sound good when you say it out loud, that does not mean it is structurally correct.
- Ex: If I had to compare **the plays of Arthur to Shakespeare, I would say Shakespeare's is better**.
- Ex: If I had to compare the plays of Arthur to **those of Shakespeare**, I would say Shakespeare's is better.

Book Three

Math

Introduction

This book will take you through three sections regarding SAT math: Simplifying Structure, Success in Strategies, and Focusing on Formulas. This order is intentional.

Simplifying Structure breaks down every aspect of math that you will encounter on the SAT including: The different levels of math, the different kinds of math, all concepts to review, and the number of problems to expect on the math portion. This system assumes that you have taken and understood the concepts discussed in the following classes: pre-algebra, algebra 1, algebra 2, and trigonometry. This course teaches no subject matter regarding specific concepts, it simply shows you which subjects to review and how to apply your knowledge of these concepts specifically to the SAT.

The second section will be “Success in Strategies” which gives an in-depth breakdown of how strategies can be applied to optimize time. These strategies will cover how to approach problems, how to think about problems, how to manage time, and more.

The third section will be “Focusing on Formulas”. Recognizing which formula to use on the SAT will save you time and effort. This section aims to properly supply you with all the different formulas for the test to prepare you in the best way possible.

Simplifying Structure

Time and text

The math section includes two different sections: the “No-Calculator” section and the “Calculator OK” section.

The no calculator section consists of sixteen multiple choice questions and four grid-in questions. You have 25 minutes to complete the all the answers and fill in the scantron, which allows only around a minute for each problem and a couple minutes to fill out the scantron.

The Calculator OK section has thirty-two multiple choice questions and six grid-in questions. You are allowed 55 minutes to complete this section which approximates to roughly a minute and a half per problem.

Types of questions

Inside the two math sections are four hidden categories: Heart of Algebra, Problem Solving and Data Analysis, Passport to Advanced Mathematics, and Additional topics. These are the general categories that describe the content that is in the SAT. Understanding the difference between these sections will better equip you to evaluate where you are at and what you need to improve. Pay close attention to the content described in the following paragraphs because it will help you understand EXACTLY what to expect from the math sections.

Heart of Algebra focuses mainly on concepts discussed in pre-algebra and algebra 1 but seems to put the most emphasis on the following concepts: Linear equations and systems of linear equations. A linear equation is an equation that can be graphed, and systems of linear equations simply means two or more linear equations in the same problem. These problems often appear in the form of a word problem that you must convert into an equation, or simply an equation. There will be 19 different types of problems that appear on the test (33% of the math test) that cover “The Heart of Algebra” so it is important that you understand these concepts. If you would like a more in-depth breakdown of specific problem types in the Heart of Algebra, and a short strategy, view the Focus Forms in Book Five.

Problem Solving and Data Analysis covers topics including percentages, units, and probabilities. Unlike most of the problems in the heart of algebra, this section does not only incorporate concepts, but also tests students on their logical thinking. The SAT includes 17 different questions from this category which makes up 29% of the math test.

Passport to Advanced Mathematics includes questions discussed in algebra 2. This section encompasses most of the problem areas for students. The focus of this section is: quadratics, nonlinear equations and non-linear graphs. Memorizing formulas for this

section is essential. Many of the questions simply are matching formulas to an image, or rearranging formulas to be in the correct format. Additionally, it is important to practice these questions to recognize what the SAT wants you to do. There are 16 questions from the Passport to Advanced Mathematics that will be on the math section which makes up 27% of test. When solving these problems, you must combine all your skills: logical thinking, understanding concepts, and memorizing formulas. Each is a skill to learn. If you are struggling with any portion of the math section, I would suggest learning the concept first, then learning how to incorporate formulas into problems, and lastly combining logical thinking with the strategies listed below for optimal results.

Additional Topics is the smallest section of the SAT. The SAT only covers the topics in this section through six questions in the test (10%). The concepts are the following: area/volume problems, trigonometry, complex numbers, and circle equations. These questions often occur as grid-in questions. This section is formula heavy. Throughout the test you should anticipate at least 1 circle equation problem, 2-3 area or volume problems, 2 trigonometry problems (90% of the time they will be right triangle problems), any sometimes you will encounter a complex number (i) problem. These problems are straightforward; however, they can be more difficult because they are often found at the end of the sections.

Success in Strategies

Always read the question

After you have finished working on the problem, always go back and read what the question was asking. Often students will get halfway through solving the problem or solve for x when the question required them to solve for $3x$.

Plug in the Answer

Working on a problem to get an answer and then simply selecting the answer you got from the problem disables a huge advantage the multiple-choice question often gives you. Often with long algebra problems you might benefit from plugging in the multiple-choice answers and working the problem backwards. Additionally, it can never hurt to refer to the answers in the process of solving the problem.

Process of Elimination

Using the process of elimination is a combination of common sense and logical thinking. For example:

[$21(-31) + 41(2)$] Simplify this equation.

- A. -569
- B. 569
- C. -63
- D. 63

We can tell just by looking at the equation that the answer will have to be negative, therefore eliminating options B and D. Then by using common sense and estimating, we can see that the number will clearly be in the negative hundreds leaving only option A. This reduces the time from a problem that takes nearly a minute to write out and work, to a problem that takes roughly 5-10 seconds to work. When you encounter easy problems, applying this strategy will allow you to have more time to work on the harder problems in the test and conserve brain power.

You can also use this concept in more complicated problems, although I suggest eliminating answers as you go, instead of working through the entire problem in your head.

If you can, eliminate obviously wrong answers right off the bat, and then only work the problem until you have eliminated the other wrong answers. It is common that you will be able to eliminate three answers before finishing the problem.

Take Problems One Step at a Time

Often problems in the SAT (specifically long word problems) can be very difficult if you try to understand the whole thing at once. Take it SLOW. Read one sentence at a time and

digest what it is saying before you move onto the next one. Writing down what parts of sentences mean can be very beneficial especially if you struggle with understanding the problem.

Do not waste time on your calculator if you do not need to

Time is the biggest factor in the SAT so do not waste time using your calculator unnecessarily.

Pacing

If you spend more than one minute on a problem, mark it and come back to it. If you are struggling with a problem and you spend a lot of time on it, there is still a chance you can get it wrong, AND you will be more pressured for time with a problem you could get right if you had the time to properly work it.

Scenario 1: You are on the No calculator Math section, problem 4. You struggle and spend five minutes trying to figure it out. You think you got the answer, but you are not confident. Now you wasted four minutes and threw off your testing confidence because now you feel like you don't know what you're doing. You get to problem 19 and you have 30 seconds left to do 2 problems. If you had not wasted time on problem 4 you would be fine but now you are stressed and rushed. So, you either guess, or you do not finish the problem. So instead of just getting problem 4 wrong, you got problem 4, 19, and 20 wrong.

Scenario 2: You see that you are struggling with problem 4, so you mark it and move on with your test with the same confidence you had before. Since you spend only 1 minute or less on each problem, you finish all the questions that you know FOR SURE how to work and get them all correct. Now, you have 5 additional minutes to go back and look at the questions you were struggling with. Instead of getting 3 questions incorrect you maybe got one and you were much less stressed during the process.

Focusing on Formulas

Preface

There are two main times when formulas are used in the SAT: Plugging in formulas and formula recognition. Word problems might want you to convert words into a specific formula, you might have to rearrange a formula into the correct format. There are many examples of when you need formulas, but I will spare you the lecture. What is important is that you can recognize what formulas you need to use at what time. To understand which formulas, you are supposed to use, you must know which formulas are available!

Below is a list of formulas that are necessary to memorize (and some rules too) to maximize your familiarity with the test. Many of these formulas are used across several portions of the test, but I have tried my best to sort them where they are the most applicable.

Summary of Different Formulas

Heart of Algebra:

Standard formula (y-intercept)

- $Ax + By = C$

Factored formula (x-intercept)

- $a^2 - 2ab + b$

Problem Solving and Data Analysis

This section does not focus on specific formulas. Rather, it references properly reading formulas. You need to understand the different parts of exponential and linear formulas and what the role of each part is.

Mean/average:

- $\frac{\text{sum of terms}}{\text{number of terms}}$

Speed:

- $\frac{\text{distance}}{\text{total time}}$

Passport to Advanced Mathematics

Quadratic formula

- $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Discriminant formula

- $b^2 - 4ac$

Vertex formula

$$- y = a(x - h)^2 + k$$

Difference of cubes

$$- a^3 - b^3 = (a - b)(a^2 + b^2 + ab)$$

Sum of cubes

$$- a^3 + b^3 = (a + b)(a^2 - b^2 + ab)$$

Difference of squares

$$- a^2 - b^2 = (a - b)(a + b)$$

Slope intercept formula

$$- y = mx + b$$

Parabola equation

$$- y = a(x - p)(x - q)$$

Rules for exponents:

$$- a^2(a^2) = a^{2+2}$$

$$- \frac{a^5}{a^3} = a^{5-3}$$

$$- (a^2)^2 = a^{2 \times 2}$$

$$- 3^4 \times 3^5 = 3^9$$

$$- 6^5 \times 4^5 = (6 + 4)^5$$

$$- 5^5 \times 4^3 \neq (5 + 4)^{5+3}$$

$$- \sqrt[n]{a^m} = a^{\frac{m}{n}}$$

$$- \sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$$

$$- \sqrt[2]{ab} = \sqrt[2]{a^2} \sqrt{b}$$

$$- x^{-n} = \frac{1}{x^n}$$

Additional Topics

Circle formula

$$- (x - h)^2 + (y - k)^2 = r^2$$

- Think: (point - center) + (point - center) = Radius

Pythagorean theorem

$$- a^2 + b^2 = c^2$$

Sin cos tan rules

$$\text{SOH: } SINE = \frac{\textit{opposite}}{\textit{Hypotenuse}}$$

$$\text{CAH: } COS = \frac{\textit{Adjacent}}{\textit{Hypotenuse}}$$

$$\text{TAH: } TAN = \frac{\textit{Adjacent}}{\textit{Hypotenuse}}$$

Length of the arc

$$- s = r\theta$$

Area of the sector

$$- A = \frac{1}{2}\theta r^2$$

Laws:

- There are 360 degrees in a circle.
- $2\pi = \text{radians } (\theta)$
- Triangles have 180 degrees of angles.

Formulas Shown on Test

Circumference of a circle

Area of a circle

Area of a rectangle

Area of a triangle

Properties of a special right triangle (isosceles triangles)

Properties of a special right triangle (30, 60, 90 Degree triangle)

Volume of a rectangular Solid

Volume of a cylinder

Volume of a sphere

Volume of a cone

Volume of a pyramid

Summary

- Introduction
- Time and Text
- Type of Questions
- Six “Strategies for Success”
- Forty-three different formulas to memorize