



Eduvance Test Prep

# Introduction

## Overview of How to Use the Eduvance SAT Prep System

### Message to Students

Eduvance 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, you will increase your score, 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 wish you all the best and good luck!

Sincerely,

Caleb Hough at Eduvance LLC



## Explanation of Improvement

I measure improvement on two metrics. When reviewing tests, I look to find problems where students did not understand how to work the problem or got the problem wrong numerous times. This is an indicator of a “*conceptual error*”. Conceptual errors occur when students misunderstand how a problem works or are confused on the operation of specific problem types. This is the first metric.

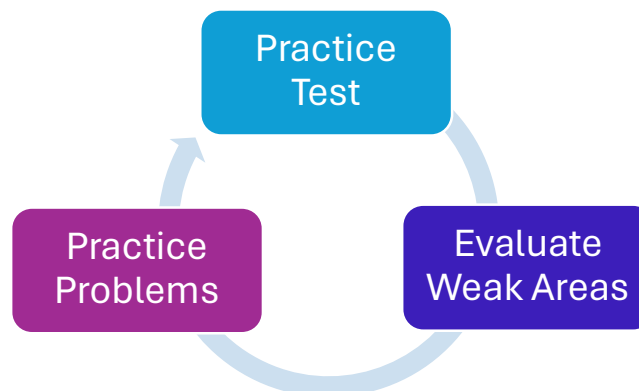
Additionally, I look for problems where students ran out of time, made a careless error, or showed inconsistency. These types of mistakes indicate “*poor strategy*”. This is the second metric.

Depending on the problems that students exhibit, they may need different solutions. If a student struggles with concepts they must be taught concepts. If a student understands how to work a problem, but still struggles with it; I will give them a strategy to improve their current pace and performance. Remember it like this: concepts cover correctness, strategies = speed.

*Concepts Cover Correctness*

*Strategies = Speed*

I strongly recommend that any student who is preparing for the SAT sets long term goals for improvement for three reasons: they solidify their knowledge in the material, they can set realistic goals and timeframes, and they get a better grasp of what the SAT encompasses. I suggest that any student preparing for the SAT takes two months to prepare, completes forty hours of practice and at least three practice tests.



The process for success is the following: Take a practice test, evaluate where you are weak, practice those types of problems until you are confident, repeat. I believe strategy is essential and important, however it is in vain if you do not take the time to practice the



Eduvance Test Prep

strategies and make them habitual. Generally speaking, improving your score is an input-output equation. The more time you put in, the more results you will get out.

Input in Preparation = Output in Improvement



### Structure of the test

The SAT covers three main topics: Math, Reading, and Writing. These topics are split into two sections: Evidence Based Reading and Writing, and Math. Each section is divided into two modules: one “Placement Module” and one “Secondary Module.”

The “Placement Module” is designed to analyze your performance and adjust the difficulty of the problems for your Second Module. Your performance in the Placement Module will determine what type of secondary module you will get.

There are two types of secondary modules: an easy module and a hard module. The easy module will be given to students who score less than 66% on the placement module and will include easy questions. The hard module will be given to students who score above 66% and will only include medium and hard questions.

Math Scenario 1:		Math Scenario 2:	
Module 1: You correctly answered 13 questions (59%)	Module 2: Easy module Includes easy, medium, and hard questions	Module 1: You correctly answered 20 questions (90%)	Module 2: Hard Module Includes medium and hard questions, but not easy ones

It is advantageous for students to get the harder module because the College Board puts a limit on the maximum score you can achieve if you get the easier module. If you were to get the easy module on both the Reading and Writing and Math sections, the maximum score you can achieve is 1200.



Why is it important to understand structure?

Proper strategies should do two things: increase your problem accuracy/consistency and increase the speed that you work a problem. Therefore, to best understand and apply any strategies, you must know the structure of the test.

EBRW: Mod. 1	EBRW: Mod. 2	Math: Mod. 1	Math: Mod. 2
<ul style="list-style-type: none"><li>• 27 questions</li><li>• 32 minutes</li><li>• 1:11 per problem</li></ul>	<ul style="list-style-type: none"><li>• 27 questions</li><li>• 32 minutes</li><li>• 1:11 per problem</li></ul>	<ul style="list-style-type: none"><li>• 22 questions</li><li>• 35 minutes</li><li>• 1:36 per problem</li></ul>	<ul style="list-style-type: none"><li>• 22 questions</li><li>• 35 minutes</li><li>• 1:36 per problem</li></ul>

*\*EBRW: Evidence Based Reading and Writing\**

The image above gives you a brief idea of what to expect when pacing yourself on the test. However, the difficulty of each individual problem will also have a bearing on how long it takes you to solve it.

For example, in the reading and writing sections, there will be passages that are 300 words long, and contain condensed information. Do not expect this problem to take the same amount of time as a simple vocabulary problem. This is essential to remember. The College Board places the majority of the reading problems before the writing problems. Reading problems generally take longer to work, consequently makes students feel behind halfway through the module.

*Work problems quickly, but do not sacrifice accuracy to do so.*

The best way to achieve a sufficient pace, with great accuracy, is to understand the concepts that are covered in the SAT. The following is a list of every topic that is in the SAT. Later in this course you can see a topic-by-topic breakdown that includes examples, strategies, and general information. You should use those examples to understand the mistakes you made on the test. Remember: if you struggle with concepts, you need to study concepts, and if you struggle with pace or inconsistency then you must study strategies.



Turn to the next page to view the list\*

## Reading and Writing

- Central Ideas and Details
- Inferences
- Command of Evidence
- Words in Context
- Text Structure and Purpose
- Cross-Text Connections
- Rhetorical Synthesis
- Transitions
- Boundaries
- Form, Structure, and Sense

## Math

- Linear equations in one variable
- Linear Functions
- Linear equations in two variables
- Systems of two linear equations
- Linear inequalities in one or two variables
- Nonlinear functions
- Nonlinear equations in one variable and systems of equations in two variables
- Equivalent expressions
- Ratios, Rates, Units and proportions
- Percentages
- One-variable data
- Two-variable data
- Probability
- Models and Scatterplots
- Inferences: margin of error, statistics
- Volume and area
- Lines, angles, and triangles
- Right Triangles and trig
- Circles

*This information is also available on the College Board's website and the Bluebooks application.*



Eduvance Test Prep

## Reading and Writing

All reading questions have the same thing in common: the answer is in the text. Consequently, there are only two ways you can get a reading question wrong. The first is if you misunderstand the passage, the second is if you misunderstand the answers. To solve for this dilemma, you must realize which issue you struggle to understand.

Reading comprehension is the ability to understand what the passage is saying. The strategies I will give you will force you to understand the passage and its answers. The approach I will give you can be applied across the board and must be practiced before it can be used efficiently.

## Pace

The main **function** of pace is time. Because time is a huge factor on the test, it is important to set a proper pace. Now, officially on the reading and writing sections, you have one minute and eleven seconds for each problem. Keep in mind that most of the harder questions with long reading passages will be before simpler problems, so if you feel like you are falling behind on time, you might be perfectly fine.

The largest **determiner** of pace is actually personal skill level. If you are someone who historically struggles with reading, take as much time as you need with each problem that you can easily get correct, then guess on the remaining problems. If you do well with reading, go as quickly as possible without sacrificing accuracy.



## Reading Strategies

I have found that simplicity is the best route towards success. While I could have put dozens of strategies in here and overcomplicated it, I thought it would be the most effective to only mention strategies that always work. Since my strategies require you to build off of the base skills that are required to succeed in the SAT, it is virtually impossible to apply these strategies and not improve your score.

Keep in mind that the SAT reading portion is meant to test your ability in two main areas:

1. Craft and Structure
2. Information and Ideas.

This means that you are looking at the overall structure of the passages, or the overall ideas. **Do not get caught up in the details.** You will see this in later examples.

Strategy #1: “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?”

Strategy #2: “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 must find what the evidence suggests.

Strategy #3: “Choose the MOST right answer.”

Often it seems like you are at a crossroads between two or more answers. The main function of this issue is missing a main concept or idea in the passage. It is best to find what you are missing in the passage. However, sometimes you are limited on time. When this occurs, simply ask yourself: Which answer is the MOST right?

Strategy #4: “If you have to guess choose one letter.”





If you have found yourself in the unfortunate situation where you must guess, do not guess option A for one, and Option B for the next one, etc. Statistically, if you only guess one letter, you have a higher chance of getting more answers right.

Strategy #5: “Create mini summaries for each sentence if necessary.”

Often when students struggle with reading comprehension, they use large amounts of brainpower focusing on the small details in a passage. However, the SAT tests on structure and ideas. Creating small summaries of what happens in each sentence can help give a better idea of what is happening, especially in confusing passages.

Example:

Passage: *“Black beans (*Phaseolus vulgaris*) are a nutritionally dense food, but they are difficult to digest in part because of their high levels of soluble fiber and compounds like raffinose. They also contain antinutrients like tannins and trypsin inhibitors, which interfere with the body’s ability to extract nutrients from foods. In a research article, Marisela Granito and Glenda Álvarez from Simón Bolívar University in Venezuela claim that inducing fermentation of black beans using lactic acid bacteria improves the digestibility of the beans and makes them more nutritious.”*

Mini summaries: Black beans healthy, hard to digest, high soluble fiber and raffinose. Tannins and trypsin inhibitors in black beans make it harder for the body to extract nutrients. Improve digestibility by fermenting them with lactic acid, and more nutritious.

Larger summary: Black beans are nutritious, but something makes them hard to digest. Certain fermentation can make them easier to digest, and more nutritious.

Another way to use this strategy is to associate words with terms in the passage. “Black Beans = nutritious and hard to digest”.

Bonus Strategy: “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.



Eduvance Test Prep

## General Approach for Reading Questions

Step 1: Read the question.

Step 2: Rephrase the question.

Step 3: Treasure hunt.

Step 4: Draw your own conclusion.

Step 5: Compare your conclusion with the answers.

This system is designed to be useful for ALL reading questions. However, if you desire more specific examples for each problem type, I will provide those as well.

I have left the answers out of the original example problem to illustrate the system. I will demonstrate how this system works with the problem below:

### *Example Problem 1:*

*“Some animal-behavior studies involve observing wild animals in their natural habitat, and some involve capturing wild animals and observing them in a laboratory. Each approach has advantages over the other. In wild studies, researchers can more easily presume that the animals are behaving normally, and in lab studies, researchers can more easily control factors that might affect the results. But if, for example, the results from a wild study and a lab study of Western scrub-jays (*Aphelocoma californica*) contradict each other, one or both of the studies must have failed to account for some factor that was relevant to the birds’ behavior.”*

*“Which choice best states the main idea of the text?”*

Step 1: Read the question.

*“Which choice best states the main idea of the text?”*

Step 2: Rephrase the question.

Whenever you rephrase a question (or a statement) you want to do so in a way that requires you to find the answer in the text, which naturally leads to the third step.

*“Which choice best states the main idea of the text?”*

*“What is the main idea of the text?”*

Simple enough right?

Step 3: Treasure hunt.



Now it is time for you to read the passage and answer the question. Remember you are looking at overall structure and ideas.

Step 4: Draw your own conclusion.

In sentence one, the author contrasts two different ways to conduct an experiment. Next, he states how they both have advantages. He continues to go into detail about the advantages and disadvantages of both choices. And then he gives an example about how one or both systems might be faulty.

From this information, my conclusion would be: “The main purpose of this text is to contrast the pros and cons of different ways to do an experiment.”

Time for the next step.

Step 5: Compare your conclusion with the answers.

My conclusion was, **“The main purpose of this text is to contrast the pros and cons of different ways to do an experiment.”**

the answers that were given are the following:

- A. *When the results of a natural-habitat study and those from a lab study of a wild animal such as the Western scrub-jay conflict, the study in the natural habitat is more likely than the lab study to have accurate results.*
- B. *Studying wild animals such as the Western scrub-jay in both their natural habitat and lab settings is likely to yield conflicting results that researchers cannot fully resolve.*
- C. *Wild animals such as the Western scrub-jay can be effectively studied in their natural habitat and in the lab, but each approach has drawbacks that could affect the accuracy of the findings.*
- D. *Differing results between natural-habitat and lab studies of wild animals such as the Western scrub-jay are a strong indication that both of the studies had design flaws that affected the accuracy of their results.*

Option A suggests that the “Main Point” of the text is about the results, so A is wrong.

Option B is also about results.

Option C talks about the contrasts and conflicts of two different experiments and how each has their drawbacks. Option C is a very good option, but let’s check Option D just to make sure.



Eduvance Test Prep

Option D puts on emphasis on design flaws but does not accurately give a picture of the overall outline of the passage.

Option C is the correct answer!

It is important to remember that the even if an answer makes sense based on the material in the passage, it is only right if it appropriately addresses the question that is being asked. In the question above, answer D could be logically sound, but it does not appropriately address the main structure of the text. This is why reading the question first and rephrasing it in a way that you can remember is the most important step.

*\*For more example problems, view the link to "Reading Examples". \**



Eduvance Test Prep

### Reading Approach By Problem Type

The College Board names five different types of problems that are in the SAT. However, I am going to modify these problem types to make them more recognizable when evaluating a placement test.

I have sorted the Reading portion into six different types of problems: Main topic/Structure questions, Logical Completion questions, Support Questions, Poem questions, Text 1 vs. Text 2 questions, and Note-Organization questions. These organized problem types should make it easy to recognize a problem on a test, thereby making it easier to remember the approaches I am about to give you.



Eduvance Test Prep

Main Topic/Structure questions:

Approach:

Step 1: Read the question.

Step 2: Rephrase the question.

Step 3: Treasure hunt.

Step 4: Draw your own conclusion.

Step 5: Compare your conclusion with the answers.

I have left the answers out of the original example problem to illustrate the system. I will demonstrate how this system works with the problem below:

*Example Problem 1:*

*“Some animal-behavior studies involve observing wild animals in their natural habitat, and some involve capturing wild animals and observing them in a laboratory. Each approach has advantages over the other. In wild studies, researchers can more easily presume that the animals are behaving normally, and in lab studies, researchers can more easily control factors that might affect the results. But if, for example, the results from a wild study and a lab study of Western scrub-jays (*Aphelocoma californica*) contradict each other, one or both of the studies must have failed to account for some factor that was relevant to the birds’ behavior.”*

*“Which choice best states the main idea of the text?”*

Step 1: Read the question.

*“Which choice best states the main idea of the text?”*

Step 2: Rephrase the question.

Whenever you rephrase a question (or a statement) you want to do so in a way that requires you to find the answer in the text, which naturally leads to the third step.

*“Which choice best states the main idea of the text?”*

*“What is the main idea of the text?”*

Simple enough right?

Step 3: Treasure hunt.



Now it is time for you to read the passage and answer the question.

Step 4: Draw your own conclusion.

In sentence one, the author contrasts two different ways to conduct an experiment. Next, he states how they both have advantages. He continues to go into detail about the advantages and disadvantages of both choices. And then he gives an example about how one or both systems might be faulty.

From this information, my conclusion would be: “The main purpose of this text is to contrast the pros and cons of different ways to do an experiment.”

Time for the next step.

Step 5: Compare your conclusion with the answers.

My conclusion was, **“The main purpose of this text is to contrast the pros and cons of different ways to do an experiment.”**

the answers that were given are the following:

- E. When the results of a natural-habitat study and those from a lab study of a wild animal such as the Western scrub-jay conflict, the study in the natural habitat is more likely than the lab study to have accurate results.*
- F. Studying wild animals such as the Western scrub-jay in both their natural habitat and lab settings is likely to yield conflicting results that researchers cannot fully resolve.*
- G. Wild animals such as the Western scrub-jay can be effectively studied in their natural habitat and in the lab, but each approach has drawbacks that could affect the accuracy of the findings.*
- H. Differing results between natural-habitat and lab studies of wild animals such as the Western scrub-jay are a strong indication that both of the studies had design flaws that affected the accuracy of their results.*

Option A suggests that the “Main Point” of the text is about the results, so A is wrong.

Option B is also about results.

Option C talks about the contrasts and conflicts of two different experiments and how each has their drawbacks. Option C is a very good option, but let’s check Option D just to make sure.



Eduvance Test Prep

Option D puts on emphasis on design flaws but does not accurately give a picture of the overall outline of the passage.

Option C is the correct answer!

It is important to remember that the even if an answer makes sense based on the material in the passage, it is only right if it appropriately addresses the question that is being asked. In the question above, answer D could be logically sound, but it does not appropriately address the main structure of the text. This is why reading the question first and rephrasing it in a way that you can remember is the most important step.





Eduvance Test Prep

Logical Completion questions:

Approach

Step 1: Read the question.

Step 2: Rephrase the question.

Step 3: Treasure hunt.

Step 4: Draw your own conclusion.

Step 5: Compare your conclusion with the answers.

It is important to note that although the basic steps are the same for every reading problem, there is a different depth to each step depending on the problem type. For example, Main Topic questions have a basic step 2, however logical comparison questions might require several questions to be answered before you can move to the next step.

Example Problem:

*“Birds of many species ingest foods containing carotenoids, pigmented molecules that are converted into feather coloration. Coloration tends to be especially saturated in male birds’ feathers, and because carotenoids also confer health benefits, the deeply saturated colors generally serve to communicate what is known as an honest signal of a bird’s overall fitness to potential mates. However, ornithologist Allison J. Shultz and others have found that males in several species of the tanager genus *Ramphocelus* use microstructures in their feathers to manipulate light, creating the appearance of deeper saturation without the birds necessarily having to maintain a carotenoid-rich diet. These findings suggest that \_\_\_\_\_”*

*“Which choice most logically completes the text?”*

Step 1: Read the question.

*“Which choice most logically completes the text?”*

Step 2: Rephrase the question.

*\*Remember, you need to rephrase this question in a way that allows you to look for something in the passage. Before you can reword the question above, you must ask another question. \**

*Question 1: What is the passage about*

By looking at the first half of the last sentence we can see it reads, “These findings suggest that \_\_\_\_\_”



By looking at this statement we need to find what “findings” the passage is talking about.

*Question 2: What are the findings that the passage mentions?*

*Question 3: Which phrase most logically completes the suggestion of the findings?*

### Step 3: Treasure hunt

Now you must read the passage and determine what the “findings” are.

*The findings show that some male birds manipulate light to attract female birds, but bright colors are not necessarily due to a healthy carotenoid diet.*

### Step 4: Draw your own conclusion.

Remember not to make any inferences about what you think the answer should be, make your answer based only on the specific data mentioned in the text. For example, it might be tempting to speculate and say, “This shows that carotenoids do not increase coloration.” However, it does not say that in the passage.

In the passage it states, “the deeply saturated colors generally serve to communicate what is known as an honest signal of a bird’s overall fitness to potential mates.”

Therefore, the conclusion that I would draw would be:

*“Male birds deceptively manipulate light to seem healthier to female birds.”*

### Step 5: Compare your conclusion to the answers:

My conclusion: “Male birds deceptively manipulate light to seem healthier to female birds.”

- A. Individual male tanagers can engage in honest signaling without relying on carotenoid consumption.
- B. Feather microstructures may be less effective than deeply saturated feathers for signaling overall fitness.
- C. Scientists have yet to determine why tanagers prefer mates with colorful appearances.
- D. A male tanager’s appearance may function as a dishonest signal of the individual’s overall fitness.

Option A: carotenoid consumption would be sign of health in a bird, which would mean improper consumption would be dishonest.



Eduvance Test Prep

Option B: This does not follow the logical completion of the passage.

Option C: Not the point of the passage.

Option D: This answer shows that the tanagers may be dishonest in their health because of their bright colors.

Option D is the correct answer!



### Note-Organization questions:

For Note-Organization questions it is important to remember that the nature of the question varies problem to problem. Thus, step one becomes vital in the proper completion of the problem. For example, in the problem below it states: “The student wants to emphasize the duration and purpose of Cohen’s and Rodrigues’s work”. As this question is specific to this problem, students should not assume that they know what the question will ask, so step 1 is vital.

### Approach

Step 1: Read the question.

Step 2: Rephrase the question.

Step 3: Treasure hunt.

Step 4: Compare your information to the answers.

### Example problem:

*“While researching a topic, a student has taken the following notes:*

- *The Gullah are a group of African Americans who have lived in parts of the southeastern United States since the 18th century.*
- *Gullah culture is influenced by West African and Central African traditions.*
- *Louise Miller Cohen is a Gullah historian, storyteller, and preservationist.*
- *She founded the Gullah Museum of Hilton Head Island, South Carolina, in 2003.*
- *Vermelle Rodrigues is a Gullah historian, artist, and preservationist.*
- *She founded the Gullah Museum of Georgetown, South Carolina, in 2003.”*

*“The student wants to emphasize the duration and purpose of Cohen’s and Rodrigues’s work. Which choice most effectively uses relevant information from the notes to accomplish this goal?”*

### Step 1: Read the Question

*“The student wants to emphasize the duration and purpose of Cohen’s and Rodrigues’s work. Which choice most effectively uses relevant information from the notes to accomplish this goal?”*



There are a couple of notable parts here. The first half of the question tells us how the summary sentence needs to be structured. The second half asks the actual question.

Step 2: Rearrange the question.

*“Which choice most effectively emphasized the duration and purpose of Cohen’s and Rodrigues’s work?”*

Which also prompts the question:

*“What was Cohen’s and Rodrigues’s work?”*

Step 3: Treasure Hunt

First, we must find what Cohen’s and Rodrigues’s work actually was.

*“Louise Miller Cohen is a Gullah historian, storyteller, and preservationist [who] founded the Gullah Museum of Hilton Head Island, South Carolina, in 2003..”*

*“Vermelle Rodrigues is a Gullah historian, artist, and preservationist [who] founded the Gullah Museum of Georgetown, South Carolina, in 2003.”*

We now know that both Cohen and Rodrigues founded Gullah museums in South Carolina in 2003. This tells us that their work was on Gullah history/preservation.

Now we must figure out the duration and purpose of their work, which appears to be from 2003-the present.

Now let’s compare the answers.

Step 4: Compare your information to the answers.

Our question:

*“Which choice most effectively emphasized the duration and purpose of Cohen’s and Rodrigues’s work?”*

- A. At the Gullah Museums in Hilton Head Island and Georgetown, South Carolina, visitors can learn more about the Gullah people who have lived in the region for centuries.



Eduvance Test Prep

- B. Louise Miller Cohen and Vermelle Rodrigues have worked to preserve the culture of the Gullah people, who have lived in the United States since the 18th century.
- C. Since 2003, Louise Miller Cohen and Vermelle Rodrigues have worked to preserve Gullah culture through their museums.
- D. Influenced by the traditions of West and Central Africa, Gullah culture developed in parts of the southeastern United States in the 18th century.

Answer A: Does not mention the duration of their work.

Answer B: Mentions the duration of the Gullah people, but not Cohen and Rodrigues's work.

Answer C: Talks about how long they have been working to preserve Gullah Culture.

Answer D. Talks about Gullah history.

Answer C is correct!



### Support Questions:

Support questions are easy to recognize because they have the word “support” in the question. Generally, they are asking you to choose an answer that supports information mentioned in the passage, so reading comprehension is very important for this type of problem.

### Approach

Step 1: Read the question.

Step 2: Rephrase the question.

Step 3: Treasure hunt.

Step 4: Draw your own conclusion.

Step 5: Compare your conclusion with the answers.

### Example Problem:

*“In the twentieth century, ethnographers made a concerted effort to collect Mexican American folklore, but they did not always agree about that folklore’s origins. Scholars such as Aurelio Espinosa claimed that Mexican American folklore derived largely from the folklore of Spain, which ruled Mexico and what is now the southwestern United States from the sixteenth to early nineteenth centuries. Scholars such as Américo Paredes, by contrast, argued that while some Spanish influence is undeniable, Mexican American folklore is mainly the product of the ongoing interactions of various cultures in Mexico and the United States.”*

*“Which finding, if true, would most directly support Paredes’s argument?”*

Step 1: Read the question.

*“Which finding, if true, would most directly support Paredes’s argument?”*

Step 2: Rephrase the question.

(in this case the original question suffices)

However, you still must answer the question:

*“What is Paredes’s argument”*



### Step 3: Treasure Hunt

Paredes's argument:

*"...Spanish influence is undeniable, [but] Mexican American folklore is mainly the product of the ongoing interactions of various cultures in Mexico and the United States."*

Now we must address the original question:

*"Which finding, if true, would most directly support Paredes's argument?"*

### Step 4: Draw your own conclusion.

Now for this step, you should not try to draw specific examples of something that would support this argument, instead draw a mental picture of what the answers will need to support.

For example: "The evidence must support the idea that Mexican American folklore is mainly the product of cultural interaction in Mexico and the United states."

### Step 5: Review the answers with your conclusion.

- A. The folklore that the ethnographers collected included several songs written in the form of a *décima*, a type of poem originating in late sixteenth-century Spain.
- B. Much of the folklore that the ethnographers collected had similar elements from region to region.
- C. Most of the folklore that the ethnographers collected was previously unknown to scholars.
- D. Most of the folklore that the ethnographers collected consisted of *corridos*—ballads about history and social life—of a clearly recent origin.

Answer A: Supports the idea that most of the folklore originates from Spain.

Answer B: Irrelevant to the question.

Answer C: Irrelevant to the question.

Answer D. In the passage it states that Spain ruled Mexico and Parts of southern America until the 19<sup>th</sup> century. Consequently, if the *corridos* were of recent origin, it would make sense that it was after the rule of Spain, making it Mexican American culture, not Spanish culture.

Answer D is correct!





Eduvance Test Prep

## Text Reference Questions

Approach:

Step 1: Read the question.

Step 2: Rephrase the question.

Step 3: Treasure hunt.

Step 4: Draw your own conclusion.

Step 5: Compare your conclusion with the answers.

Example Problem:

*“The following text is adapted from Lewis Carroll’s 1889 satirical novel Sylvie and Bruno. A crowd has gathered outside a room belonging to the Warden, an official who reports to the Lord Chancellor.*

*One man, who was more excited than the rest, flung his hat high into the air, and shouted (as well as I could make out) “Who roar for the Sub-Warden?” Everybody roared, but whether it was for the Sub-Warden, or not, did not clearly appear: some were shouting “Bread!” and some “Taxes!”, but no one seemed to know what it was they really wanted.*

*All this I saw from the open window of the Warden’s breakfast-saloon, looking across the shoulder of the Lord Chancellor.*

*“What can it all mean?” he kept repeating to himself. “I never heard such shouting before—and at this time of the morning, too! And with such unanimity!”*

*Based on the text, how does the Lord Chancellor respond to the crowd?”*

Step 1: Read the question.

*“Based on the text, how does the Lord Chancellor respond to the crowd?”*

Step 2: Rephrase the Question

\*The question will stay the same for this example\*



### Step 3: Treasure hunt

You need to find the following information about the passage:

- What is the crowd saying that the Lord Chancellor must respond to?
- How does the Lord Chancellor respond?

### Step 4: Draw your own conclusion.

We see that the people did not really know what they were shouting about. Additionally, the Lord Chancellor is perplexed about the situation and specifically the time of morning that it is occurring at. He asserted that the crowd showed unanimity (unity), even though previously in the passage it stated they have no idea what they were gathering for.

### Step 5: Compare your conclusion with answers.

Our conclusion was that the Lord Chancellor was confused about why they were gathering and inaccurately asserted that the crowd agreed with each other.

- A. He asks about the meaning of the crowd's shouting, even though he claims to know what the crowd wants.
- B. He indicates a desire to speak to the crowd, even though the crowd has asked to speak to the Sub-Warden.
- C. He expresses sympathy for the crowd's demands, even though the crowd's shouting annoys him.
- D. He describes the crowd as being united, even though the crowd clearly appears otherwise.

Option A: He never claimed to know what the crowd wanted; in fact he did the opposite.

Option B: The whole statement is false.

Option C: The text never specified that the shouting annoyed him.

Option D: He said he was surprised with the crowd's unanimity (unity) even though they were not united. This is an accurate answer.

Option D is correct.

Vocabulary is important for this type of question. Additionally, many question like these will utilize poems. Without proper reading comprehension, you will struggle to understand the passage.



### Text 1 vs Text 2 questions

These questions often confuse students because they utilize the concept of inference. Inference questions are difficult for many students to work because it asks you to draw a conclusion about the text without any explicit portion of the passage that contains the answer. Despite there being no explicit portion of the passage that holds the answer, there are indicators that you should look for in inference questions.

With text 1 vs text 2 questions, the question will be phrased in a few different ways:

1. How would author \_\_\_ refute author \_\_\_'s point: \_\_\_\_\_.
2. What would author \_\_\_ and author \_\_\_ likely agree on.

An important thing to keep in mind with these types of passages is looking at the main argument/perspective, and the points the author makes to support the passage.

### Approach

Step 1: Read the question.

Step 2: Rephrase the question.

Step 3: Treasure hunt.

Step 4: Draw your own conclusion.

Step 5: Compare your conclusion with the answers.

### Example Problem:

#### *Text 1*

*When companies in the same industry propose merging with one another, they often claim that the merger will benefit consumers by increasing efficiency and therefore lowering prices. Economist Ying Fan investigated this notion in the context of the United States newspaper market. She modeled a hypothetical merger of Minneapolis-area newspapers and found that subscription prices would rise following a merger.*

#### *Text 2*

*Economists Dario Focarelli and Fabio Panetta have argued that research on the effect of mergers on prices has focused excessively on short-term effects, which tend to be adverse*



*for consumers. Using the case of consumer banking in Italy, they show that over the long term (several years, in their study), the efficiency gains realized by merged companies do result in economic benefits for consumers.*

*Based on the texts, how would Focarelli and Panetta (Text 2) most likely respond to Fan's findings (Text 1)?"*

Step 1: Read the Question.

*Based on the texts, how would Focarelli and Panetta (Text 2) most likely respond to Fan's findings (Text 1)?"*

Step 2: Rephrase the Question.

What are Fan's findings?

How would Focarelli and Panetta, respond to \_\_\_\_\_ (Fan's findings).

Step 3: Treasure Hunt.

The purpose of text one is to refute the claim that subscription prices would lower in the case of a company merger. Fan makes the claim using a hypothetical scenario that they would not lower, but instead rise.

Text 2 emphasizes the point that most studies conducted on mergers simply look at the short-term analysis of the merger, but on a long-term basis the merger does benefit consumers. Refuting what is said in Text 1.

*\*look at overall structure\**

Step 4: Draw your own conclusion.

From the information given above we can make logical assumption that the authors from text 2 would likely refute text 1 by saying:

*"They should look at the results of consumer benefit on a more long-term basis."*

Step 5: Compare your conclusion to the answers.

- A. They would argue that over the long term the expenses incurred by the merged newspaper company will also increase.
- B. They would recommend that Fan compare the near-term effect of a merger on subscription prices in the Minneapolis area with the effect of a merger in another newspaper market.



Edvance Test Prep

- C. They would encourage Fan to investigate whether the projected effect on subscription prices persists over an extended period.
- D. They would claim that mergers have a different effect on consumer prices in the newspaper industry than in most other industries.

Option A: This option mentions they should measure long-term expenses but does not measure overall consumer benefits.

Option B: This option states that Fan should have more than one example for her agreement, but does not answer the question, “how would the authors of text 2 LIKELY respond.”

Option C: This answer states that they would encourage Fan to increase her time span for tests.

Option D: This answer does not align with the argument that is made in text 2.

Option C is the correct answer.



## Writing Strategies

### Strategy #1: Read the Sentence Out Loud.

Often a choice looks right in the text but sounds 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.

### Strategy #2: 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.

### Strategy #3: Watch for repetition.

Often the College Board 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.

### Strategy #4: 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.

### Strategy #5: Easiest Questions to increase your score.

Writing questions are the easiest questions to improve on. If you are a student who performed the worst on the writing questions, put 90% of your focus into improving your writing skill. The other 10% should only be allocated to other subjects 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.
- Example: 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.

Examples:

- **Commas after introductory clauses, phrases, or words:**
  1. After a long day at work, I like to relax by reading a book.
  2. Unfortunately, the weather didn't cooperate with our outdoor plans.
  3. Well, it looks like we're going to need a new plan.
- **Commas to separate nonessential elements:**
  1. My brother, who lives in Seattle, is coming to visit next week.
  2. The championship game, despite the heavy rain, was thrilling to watch.
  3. That book you lent me, believe it or not, changed my perspective on many things.
- **Commas for items in a series:**
  1. I need to buy eggs, milk, bread, and butter from the grocery store.
  2. She is talented, ambitious, and driven.
  3. For our trip, we packed clothes, snacks, a map, and a first-aid kit.
- **Commas for nonrestrictive clauses:**
  1. The painting, which was hung in the hallway, is now in the museum.
  2. Our cat, whom we adopted three years ago, is very mischievous.
  3. The documentary, which I watched last night, was incredibly insightful.
- **Commas for appositives:**
  1. My friend Alice, a skilled photographer, is showcasing her work at the gallery.
  2. William Shakespeare, the famous playwright, wrote numerous plays and sonnets.



3. The capital of France, Paris, is known for its beautiful architecture.
- **Commas for direct addresses:**
    1. Lisa, could you please pass the salt?
    2. Thank you, sir, for your assistance.
    3. No, Mom, I didn't forget to do my homework.
  - **Commas for direct quotations:**
    1. The teacher said, "Please turn to page 82."
    2. "I can't believe it," she whispered, "he actually remembered my birthday."
    3. He shouted, "Everyone, out of the building now!"

### **Semicolons:**

Semicolons are used between closely related independent clauses which are not joined by a coordinating conjunction.

### **Without a coordinating conjunction:**

1. The weather is cold; we should wear our coats.
2. She loves to read mystery novels; he prefers science fiction.
3. The project deadline is tomorrow; everyone is working late tonight.

### **Before transitional phrases or conjunctive adverbs:**

1. I didn't see the sign; therefore, I missed the turn.
2. He is qualified for the job; however, he lacks experience in this field.
3. They wanted to buy a new car; instead, they decided to save the money for a house.

### **With series that contain commas:**

1. The conference will take us to Boston, Massachusetts; Los Angeles, California; and Austin, Texas.
2. She ordered a salad, with extra olives; a soup, without cream; and a steak, medium rare.





### **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.

Examples:

- **To give emphasis**

Example: There was one thing she knew for certain: she would never give up.

- **To present dialogue**

Example: He shouted: "Leave the room immediately!"

- **To introduce a list**

Example: You need to buy the following groceries: milk, eggs, bread, and butter.

- **To introduce a text**

Example: In his speech, he quoted Shakespeare: "To be, or not to be that is the question."

- **To clarify compositions**

Example: The key to happiness is simple: live as if you were to die tomorrow.

### **Capitalization After a Colon:**

- Capitalizing the first letter following a colon (proper noun): We visited two countries: France and Spain.
- Capitalizing the first letter following a colon (start of a complete sentence): She gave me one piece of advice: Always believe in yourself.



### **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.

- **To enclose incidental or supplemental information**

Example: He finally answered (after taking what seemed like an eternity) and agreed to meet.

- **To clarify**

Example: The CEO (Chief Executive Officer) will attend tomorrow's meeting.

- **To illustrate or provide examples.**

Example: We visited several countries last year (e.g., France, Italy, Spain).

- **To indicate a digression or afterthought**

Example: I need to buy groceries (I forgot to add that to my list) on my way home.

- **To enclose citations or references**

Example: The theory is discussed in various studies (Smith, 2020; Johnson, 2021).

- **To provide translations**

Example: He greeted me in Japanese (konnichiwa) when we met.

- **To include information or figures that are not essential but helpful.**

Example: The population of the city has grown significantly (by 15% over the last decade).

- **To specify acronyms after the full term is given.**

Example: The document was sent to the Human Resources Department (HRD) for review.



## Dashes

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

Dashes, specifically ‘em’ dashes (—), serve various purposes in writing, offering a versatile tool for punctuation. Here are some common uses with examples:

### To indicate an interruption or break in thought.

Example: I was going to tell you—that is, before I was rudely interrupted **To set off a list or a clarification within a sentence**

Example: Three cities—Paris, London, and Rome—stand out as my favorites.

- **To provide an emphasis or definition**

Example: My best friend—a person who knows all about me, yet still enjoys my company.

- **To introduce an explanation, conclusion, or restatement**

Example: There's only one person who could have taken the last cookie—my brother.

- **To denote a sudden change in tone or thought**

Example: The sunset was beautiful—breathtaking, really.

- **To attribute a quote**

Example: "To be or not to be, that is the question." —William Shakespeare

- **To create a strong break or pause in a sentence, stronger than commas or parentheses.**

Example: Everything she owned was in that suitcase—clothes, books, pictures.

- **To replace parentheses for additional information or an aside that is closely related to the main clause.**

Example: His decision to leave early—that is, before the storm hit—saved his life.



### **Modifiers and Modifier Placement:**

Modifier: words, phrases, and clauses that affect and often enhance the meaning of a sentence.

Example: 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.

Example:

- 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.

Examples: is, was, are, etc.

### **Logical comparison:**

Logical comparison: a sentence that makes a comparison that is structurally and grammatically correct.

Example: 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.*

Example:

1. If I had to compare **the plays of Arthur to Shakespeare**, I would say **Shakespeare's is better**.



Eduvance Test Prep

2. If I had to compare the plays of Arthur to **those of** Shakespeare, I would say Shakespeare's is better.



## Math

### Preface

Math questions are different from Reading and Writing questions. Math is much more unpredictable. While Reading and Writing questions can be simplified into a group of five different variation of problems, math could be sorted into hundreds or more. This makes it slightly more difficult to apply strategies that work across the board.

Just as with reading and writing, establishing a solid foundation with concepts is crucial for success. In this section of the course, I will equip you with strategies for tackling challenges and approaches to common stumbling blocks, particularly in word problems. Expect to receive five versatile problem-solving strategies, and every formula that you may need on the test. It is important to remember that concepts are the foundation of success in the SAT. While I do not teach concepts in this course, you can view the free resources tab for information on where to find places to review and practice concepts.

### Pacing

If you spend more than one minute on a problem, mark it and return to it later. If you're struggling with a problem and invest significant time in it, there's still a chance of getting it wrong. Additionally, you'll find yourself under time pressure for a problem you might solve correctly if given adequate time.

Let me give you an example:

#### *Scenario One*

You struggle and spend five minutes working one single problem. You think you got the answer, but you are not confident. Now you wasted four minutes and threw off your testing confidence. You reach the last two problems with thirty seconds left to do 2 problems. If you had not wasted time on problem four 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, 21, and 22 wrong.

#### *Scenario Two*

You see that you are struggling with problem four, 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 only missed one. Also, you were much less stressed during the process.



## Math Strategies

### Strategy #1: “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  $3x$ .

### Strategy #2: “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.

### Strategy #3: “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

You may have heard someone say that the SAT is a logic test. Problems like this are a direct example of utilizing logic in the SAT. Initially when you look at this problem, it may be tempting to pull out your calculator and begin punching in numbers. However, let's see if we can solve it quicker using the process of elimination. When looking at the first part of this equation, we can quickly get an estimate of  $21(-31)$ . We can see that it will be a negative number that will be around -600. Looking at the second part of the equation  $41(2)$ , we can see that it will be a positive 2-digit number that will be added to our estimated -600. Upon seeing this we can ascertain that the answer will be a negative 3-digit number. The only possible solution is A.

This reduces the problem worktime from nearly a minute to write out and work, to roughly 5-10 seconds. 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.



Eduvance Test Prep

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.

**Strategy #4: “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. I will show you a more in-depth breakdown of this concept in the word problem examples.

**Strategy #5: “Only use your calculator if it will save you time.”**

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





## Focusing on Formulas

### Preface

There are two main times when formulas are used in the SAT: Plugging formulas into equations and formula recognition. 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 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.

### Summary of Different Formulas and Laws

Standard formula (y-intercept)

- $Ax + By = C$

Factored formula (x-intercept)

- $a^2 - 2ab + b$ .

Mean/average:

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

Speed:

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

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



Eduvance Test Prep

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

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:

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

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

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

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

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

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

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

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

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

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

Circle formula

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

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

Pythagorean theorem

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



Eduvance Test Prep

Sin cos tan rules

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

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

$$\text{TOA: } TAN = \frac{\textit{Opposite}}{\textit{Adjacent}}$$

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.

Circumference of a circle

$$- C = 2\pi r$$

Area of a circle

$$- A = \pi r^2$$

Area of a rectangle

$$- A = \textit{Length}(\textit{width})$$

Area of a triangle

$$- A = \frac{1}{2}B(H)$$

Isosceles Right Triangle (45-45-90 Triangle):

Angles: The angles are  $45^\circ$ ,  $45^\circ$ , and  $90^\circ$ .

Side Lengths: In a 45-45-90 triangle, the two legs are congruent (equal in length), and the hypotenuse is  $(\sqrt{2})$  times the length of each leg.

If each leg is of length  $(x)$ , then the hypotenuse is  $(x\sqrt{2})$ .



Eduvance Test Prep

Formulas:

$$\text{Hypotenuse} = (x\sqrt{2})$$

$$\text{Legs} = (x)$$

30-60-90 Triangle:

Angles: The angles are  $30^\circ$ ,  $60^\circ$ , and  $90^\circ$ .

Side Lengths: The side opposite the  $30^\circ$  angle is the shortest side. The side opposite the  $60^\circ$  angle is  $(\sqrt{3})$  times the length of the shortest side. The hypotenuse is twice the length of the shortest side.

If the shortest side (opposite  $30^\circ$ ) is  $(x)$ , then the side opposite the  $60^\circ$  angle is  $(x\sqrt{3})$ , and the hypotenuse is  $(2x)$ .

Formulas:

$$\text{Shortest side (opposite } 30^\circ) = (x)$$

$$\text{Side opposite } 60^\circ = (x\sqrt{3})$$

$$\text{Hypotenuse} = (2x)$$

Volume of a Rectangular Solid (Cuboid):

$$- [V = l \times w \times h]$$

Volume of a Cylinder:

$$- [V = \pi r^2 h]$$

Volume of a Sphere:

$$- [V = \frac{4}{3} \pi r^3]$$

Volume of a Cone:

$$- [V = \frac{1}{3} \pi r^2 h]$$

Volume of a Pyramid:



Eduvance Test Prep

-  $[V = \frac{1}{3}Bh]$



## Math Approach to Word Problems

Unlike the Reading and writing questions, there is not general approach for you to bring to the math questions. Instead, you must understand where to apply specific strategies. Additionally, there will be strategies that you use simultaneously. For one problem you might need to use all strategies to optimize for time, and only one strategy for another problem.

That being said, I have had several requests from people asking how to approach word problems. Word problems are often considered the boogieman of SAT math. However, with a few simple steps, you can conquer these questions with ease.

### *Example 1: Easy*

“On a car trip, Rhett and Jessica each drove for part of the trip, and the total distance they drove was under 220 miles. Rhett drove at an average speed of 35 miles per hour, and Jessica drove at an average speed of 40 miles per hour. Which of the following inequalities represents this situation, where ‘r’ is the number of hours Rhett drove and ‘j’ is the number of hours Jessica drove?”

- A.  $35r + 40j > 220$
- B.  $35r + 40j < 220$
- C.  $40r + 35j > 220$
- D.  $40r + 35j < 220$

### Step 1: Read the Passage; Find Important Information

Often when reading through word problems, it is easy to read the words and not digest the important information. To solve this problem, pick out the important information as you read.

Passage: “On a car trip, Rhett and Jessica each drove for part of the trip, and the total distance they drove was under 220 miles. Rhett drove at an average speed of 35 miles per hour, and Jessica drove at an average speed of 40 miles per hour. Which of the following inequalities represents this situation, where ‘r’ is the number of hours Rhett drove and ‘j’ is the number of hours Jessica drove?”

### Step 2: Eliminate as You Go/Plug in the Answers

While reading through this passage we can see after the first sentence that the total distance will be under 220 miles. This means that we can eliminate answers A, and C, which both state that “> 220 miles”. We can then see that ‘r’ must be associated with Rhett who drove at an average speed of 35 miles per hour, which means we can eliminate option D.

The answer is B



## Eduvance Test Prep

### Example 2: Medium

“The function  $f(x) = 206(1.034)^x$  models the value, in dollars, of a certain bank account by the end of each year from 1957 through 1972, where ‘x’ is the number of years after 1957. Which of the following is the best interpretation of “f(5) is approximately equal to 243” in this context?”

- A. The value of the bank account is estimated to be approximately 5 dollars greater than in 1962 than in 1957.
- B. The value of the bank account is estimated to be 243 dollars in 1962.
- C. The value, in dollars, of the bank account is estimated to be approximately 5 times greater in 1962 than in 1957.
- D. The value of the bank account is estimated to increase by approximately 24.3 dollar every 5 years between 1957 and 1972.

### Step 1: Read the Passage; Find Important Information

Passage: “The function  $f(x) = 206(1.034)^x$  models the value, in dollars, of a certain bank account by the end of each year from 1957 through 1972, where ‘x’ is the number of years after 1957. Which of the following is the best interpretation of “f(5) is approximately equal to 243” in this context?”

*It is important to remember that the College Board will intentionally make word problems dense. If you are not careful you may find yourself overwhelmed with information. Read sentences one at a time and highlight the important parts. Ignore the rest.*

### Step 2: Eliminate as You Go/Plug in the Answers

This question is actually fairly simple. The question asks us, “Which of the following is the best interpretation of “f(5) is approximately equal to 243” in this context?” We can see that ‘x’ is meant to represent years. Additionally, we see that f(x) is the unknown in the original question. Therefore f(5) is meant to represent the years that have passed since 1957, and the bank accounts balance is roughly \$243. Five years after 57’ would be 62’. This information correlates directly with the statement in answer B.

Answer B is correct.



*Example 3: Hard*

“The cost of renting a backhoe for up to 10 days is \$270 for the first day and for \$135 each additional day. Which of the following equations gives the cost ‘y’, in dollars, of renting the backhoe for ‘x’ days, where ‘x’ is a positive integer and  $x \leq 10$ ?”

- A.  $Y = 270x - 135$
- B.  $Y = 270x + 135$
- C.  $Y = 135x + 270$
- D.  $Y = 135x + 135$

Step 1: Read the Passage; Find Important Information

Passage: The cost of renting a backhoe for up to 10 days is \$270 for the first day and for \$135 each additional day. Which of the following equations gives the cost ‘y’, in dollars, of renting the backhoe for ‘x’ days, where ‘x’ is a positive integer and  $x \leq 10$ ?

Step 2: Eliminate as You Go/Plug in the Answers

Immediately we know that we can eliminate option A, and B because the daily rate is not \$270. This leaves us with options C and D. If we read through the passage, we see that the rate for the first day will be \$270 dollars. Now, it may be tempting to select C as your answer. However, if we select C, it fails to account for the daily rate of \$135 for the first day. An easy way to double check your answer is to plug in a random number to see if the math makes sense.

We know that if we rent the backhoe for 2 days, we will be charged \$270 for the first day, and \$135 for the second day. This means the total would be \$405. However, according to answer C, our total cost would be \$135 for 2 days, plus an additional \$270, making the total cost \$540. Therefore, C is wrong because it does not account for the daily fixed rate of \$135 for the first day.

Answer D is correct





Eduvance Test Prep

## Additional Resources

### Overview:

1. Installing Bluebooks
2. Placement Test Link
3. Presentation notes from a Digital SAT seminar

These additional resources provide tools and a better understanding of how to practice for the SAT.

Bluebooks is the official software used by The College Board to administer the SAT. They also offer 6 practice tests and hundreds of practice problems.

Here is the link to the **Bluebooks installation**:

<https://bluebook.collegeboard.org/technology/devices/windows>

Here is the link to view **previous test results**, and **practice specific problems** (student questions bank): <https://mypractice.collegeboard.org/login>

Here is a link to 6 non-adaptive **practice tests (paper)**:

<https://satsuite.collegeboard.org/sat/practice-preparation/practice-tests/linear>

*To take an **adaptive Digital SAT**. Open the Bluebooks application.*



Eduvance Test Prep

Presentation notes from a Digital SAT seminar

### **Main Changes:**

- Platform
- Structure
- Grading
- What you need to do before test day
- What test day will look like.

### **Additional Topics**

- What to expect post-test.
- How to prepare.
- What I would recommend.

### **Why the SAT changed.**

According to the College Board (The administrators of the SAT) they made the switch to digital because, “Going digital allows us to offer much more flexibility in terms of when, where, and how often the SAT is given, particularly for states, districts, and schools offering the SAT to all their students as part of SAT School Day.”

Going digital not only allowed the College Board to make changes in the platform but in the structure of the test, the content of the problems, grading and the overall experience you will have on test day.

It also allows the test to gather information about the student’s overall knowledge quicker, making the test shorter and less miserable for students.

### **Fully digital**

Starting this spring the College Board has gone fully digital with the SAT. This means that all tests (SAT, PSAT 7/8, PSAT 9/10) will be using the digital system. They will be administering the DSAT through a software called Bluebooks.

### **Introduction to Bluebooks**

Bluebooks:



## Eduvance Test Prep

- a testing software that has partnered with the College Board to make the digital SAT possible for us today. It is an application that can be downloaded on your computer, iPad, or tablet. In addition to providing tests on test day, they also provide practice materials such as practice tests and practice problems.

Bluebooks offers four digital practice tests to help students prepare for the SAT that are verified by the college board to accurately represent the types of problems that the SAT would include.

They also provide over 2000 practice problems (in pdf form) to help students refine weak testing areas.

- Tools
  - o Built into the Bluebooks software (both for practice and the actual test), you will have access to a variety of tools like a built-in graphing calculator, a built-in system for taking notes and highlighting, the ability to flag problems to review, and an option to cross out answers that the student thinks is incorrect helping students visualize and come to quicker more accurate conclusions.

## Changes in Structure

### Sections

Like previously, the SAT covers three main topics: Math, Reading, and Writing. With the new revision of the test, College board has combined the Reading and writing sections into a single section, leaving only two-sections: Evidence based Reading and Writing, and Math.

### Modules

Each section is divided into two modules: one “Placement Module” and one “Secondary Module.”

### Adaptive

The “Placement Module” is designed to analyze your performance and adjust the difficulty of the problems for your Second Module. Your performance in the Placement Module will determine what type of secondary module you will get. There are two types of secondary modules that you can get: an easy module and a hard module. The easy module will be given to students who get less than 66% on the placement module and will include easy questions. The hard module will be given to students who score above 66% and will only include medium and hard



Eduvance Test Prep

questions. It is advantageous for students to get the harder module because the College Board puts a limit on the maximum score you can achieve if you get the easier module. If you were to get the easy module on both the Reading and Writing and Math sections, the maximum score you can achieve is 1200. I wish I could tell you the exact system the College Board uses for weighing problems, but they do not let the full information out to the public.

### Evidence Based Reading and Writing

Not only were overall structure changes made, but also changes to individual sections. In evidence-based reading and writing they have significantly reduced the total number of problems in both combined sections from 96-54 problems with an average time of about 1 minute and 15 seconds per problem.

The total time has been reduced from 1:40 to 1:05

Possibly the biggest difference in the EBRAW section will be changes to the passages. Previously you would receive a large passage with 500-800 words and 10 questions associated with each passage. With the new revision of the test there will be a short 50–100-word passage dedicated to each problem, making the passages more comprehensible and catered to each question. In my opinion this is the best change in the new test because it makes the reading section easily consumable and manageable.



Old vs New

1

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, gift-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-recipients' 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 gift-givers assume.

Why do gift-givers assume that gift price is closely linked to gift-recipients' feelings of appreciation? Perhaps gift-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.

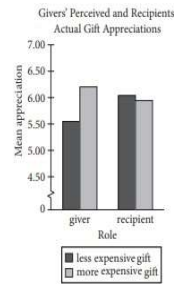
The notion of gift-givers and gift-recipients being unable to account for the other party's perspective seems puzzling because people slip in and out of these roles every day, and, in some cases, multiple times in the course of the same day. Yet, despite the extensive experience that people have as both gift-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 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

1

1

1



- 11 The authors most likely use the examples in lines 1-9 of the passage ("Every...showers") to highlight the A) regularity with which people shop for gifts. B) recent increase in the amount of money spent on gifts. C) anxiety gift shopping causes for consumers. D) number of special occasions involving gift-giving.

- 12 In line 10, the word "ambivalent" most nearly means A) unrealistic. B) conflicted. C) apprehensive. D) supportive.

- 13 The authors indicate that people value gift-giving because they feel it A) functions as a form of self-expression. B) is an inexpensive way to show appreciation. C) requires the gift-recipient to reciprocate. D) can serve to strengthen a relationship.

- 14 Which choice provides the best evidence for the answer to the previous question? A) Lines 10-13 ("Many...peers") B) Lines 22-23 ("People...own") C) Lines 31-32 ("Research...perspectives") D) Lines 44-47 ("Although...unfounded")

- 15 The "social psychologists" mentioned in paragraph 2 (lines 17-34) would likely describe the "deadweight loss" phenomenon as A) predictable. B) questionable. C) disturbing. D) unprecedented.

- 16 The passage indicates that the assumption made by gift-givers in lines 41-44 may be A) insincere. B) unreasonable. C) incorrect. D) substantiated.

Demo Digital Adaptive PSAT Test

Resume Tour

End Demo Section

JUMP TO: Reading and Writing

Compass Testing Center Section: Reading and Writing

59:33 Hide

Highlight Text Answer Eliminator

Text 1

As California faces another drought, urban residents have been called upon to do their part. About 62 gallons of water per week is needed for every one hundred square feet of grassy lawn. The average backyard is about 1,500 square feet. Add the front yard, and multiply by all the houses in a city. When residents cut down on their lawn watering, the effect is cumulative. It adds up to millions of gallons of water saved per week.

Text 2

The California Department of Water Resources reports that agriculture (farmland) accounts for 29% of all water use during a wet year. During a dry year, that figure more than doubles, claiming a staggering 61%. In contrast, urban water use ranges from just 8% during a wet year to 11% during a dry one. These figures make sense when considering that most water usage for urban dwellers happens indoors. Lawn watering—which fluctuates from wet years to dry years—is a small piece of the pie.

1

Based on the texts, how would the author of Text 2 most likely describe the view presented in Text 1?

- A) It is compelling and supports the data from the California Department of Water Resources report. B) It is accurate, but it lacks context provided by the data from the California Department of Water Resources report. C) It is plausible, but it contradicts the data from the California Department of Water Resources report. D) It is probably only applicable to water usage patterns during wet years and does not address the data from the California Department of Water Resources report.

Demo Student

Question 1 of 10

Prev Next



Eduvance Test Prep

Math is going to be seeing some overall structure changes as well. Just like the EBRAW section, we will see a decrease in the number of problems, 58 questions in 80 minutes, to 44 questions in 70 minutes, giving students more time per problem and less problems to work.

Image

The only major change aside from that however is that calculator will be allowed throughout the entire test now.

### **Changes in grading**

Less problems=less room for error

The obvious one is that there are less problems, and when there are less problems, every question is worth more points.

It is best to do well on the first module and poorly on the second module because of the adaptive testing. Try to make it a priority to get the harder second module because it opens more possibilities of getting a higher score.

Days instead of weeks

Previously it took weeks and sometimes even months to get your score back, now it will be done in a matter of days.

What to expect after the test

The new SAT utilizes the opportunity to analyze your performance on the test and recommend two-year colleges or universities, career options, trades schools and more.



Eduvance Test Prep

### **Pre-Test**

1. If you are homeschooled, you must register online for a local testing center.

### **Day of the Test:**

- Arrive at the test center.
- There will be less students in the classroom to accommodate for the lack of outlet in the facility.
- Students will no longer be required to wait until the timer has run out to move onto the next section, this eliminates wait times and can decrease the time spent at the test center.
- There will be 24 different variations of the test to increase test integrity.
  - o This also means that if one person test is found to be comprised, the rest of the class will not be penalized for it.

*\*Some of the aspects above may vary depending on the specific rules of the testing center.*



## How to prepare

- Two lenses that I see improvement through.
  - o Concepts.
  - o SAT Knowledge
- Concepts
  - o Learn concepts through school.
- SAT knowledge
  - o Learn through doing it.
  - o Many people try to simply read a book to learn the different strategies for the SAT, but I have observed that to be useless without sufficient application through practice.
- Practice
  - o I suggest each student takes at least 3 practice tests and does 20-40 hours' worth of practice problems to optimize their results on the test.
  - o If you schedule the test a few months out and work on problems for 15-30 minutes every day, for five days a week, I believe that to be an attainable goal.
  - o From my experience, roughly every 1000 problems students work results in a 60–200 point increase. Input and output equation. Of course, this number may vary in either direction depending on how the student is scoring to begin with. (if they have a 1560, they will need to work more problems to see a 40-point increase than someone who is making a 1000).
- Schedule all the available test times for your student
  - o Some SATs are harder than others, scores can vary 100-points just because of the difficulty difference.
  - o The College board recycles questions throughout the semester, so it is possible for you to see questions multiple times.
  - o The more practice the better.
- Sources
  - o Khan academy
  - o Bluebooks
  - o Tutors
    - Myself (\$35hr)
    - Prep scholar (online) \$600-\$3500 annually.
    - Generic Math or English teachers for concepts (\$15-\$250hr)
    - Princeton review (online) \$1600 for 6 months.
  - o Free sources on my website





- What is included in the test. Rules for every type of math problem, all English rules needed in the test. How to approach each section, key strategies, areas to prioritize.
- Books
  - Princeton's review
  - Be careful with any other book because most of them try to scam you with their fake practice tests. All hard questions for the first test, all easy questions for their second test to try to make it seem like you got a drastic increase in your score.
  - If you get one of the books, I advise you to only take practice problems or tests from college board and utilize only the strategies from books.
- Best options
  - Cheapest
    - Khan Academy, Bluebooks practice
  - Quickest results
    - Private tutoring
  - Middle ground.
    - Practice by yourself until you have determined exactly what areas you struggle with, then pay for a one-time session with a tutor to find the best way to attack those sections.



Eduvance Test Prep

### **What I Recommend**

1. Practice, practice, practice.

Your kids might hate doing it now, but they will love that they did it later down the line when their score helps them get into a better college or saves them a bunch of money.

2. Understand that it will take time to increase your score and set consistent and long-term goals.
3. Encourage your kids because doing SAT problem might make them want to ram their heads into a wall.

Finally, my first and foremost priority is to help my students, so if y'all are struggling with anything related to the SAT please do not be afraid to shoot me a text or an email with questions, I would love to help.

My cell: 817-437-7736.

My personal email: [calebalexander773@gmail.com](mailto:calebalexander773@gmail.com)

Thank you all for attending today!