

Test Prep Deep Dive: All About the SAT

Moderator:

Dan Cozzens
COO & Head of Tutoring

Panelists:

Christine Shaw
Tutoring Associate & SAT Expert
Bobby Foley
Tutoring Associate & SAT Expert

Welcome! The webinar will begin shortly.

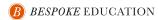


bespokeeducation.com November 19, 2024



Test Prep Deep Dive: the SAT Schedule For Today

- The SAT
 - Orientation for Tonight
- SAT Reading & Writing
 - Craft & Structure
 - Information & Ideas
 - Standard English Conventions
 - Expression of Ideas
- SAT Math
 - Algebra
 - Advanced
 - Problem Solving & Data Analysis
 - Geometry & Trigonometry
- The Basics of Test Preparation



- Four Content Domains weighted roughly equally
- Every Domain appears on both modules in the same order
- The same question types appear in every Domain

SAT: Math

- Four Content Domains not weighted equally
- All Domains appear on both modules in random order
- Greater variety of questions but they still become familiar



Each Module:

- 27 Questions
- 32 Minutes

Four Content Domains:

- Craft & Structure
- Information & Ideas
- Standard English Conventions
- Expression of Ideas

Standard Content Order

skills are important

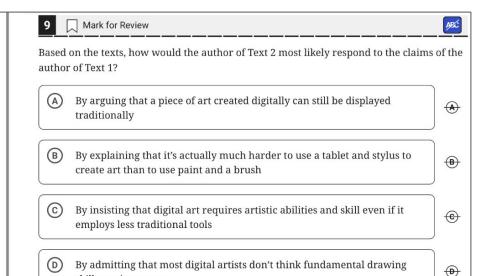
Randomized Question Difficulty

Text 1

Digital art, the use of digital technology to create or display images, isn't really art at all. It doesn't require as much skill as creating physical art. "Painting" with a tablet and stylus is much easier than using paint and a brush: the technology is doing most of the work.

Text 2

The painting programs used to create digital art involve more than just pressing a few buttons. In addition to knowing the fundamentals of art, digital artists need to be familiar with sophisticated software. Many artists will start by drawing an image on paper before transforming the piece to a digital format, where they can apply a variety of colors and techniques that would otherwise require many different traditional tools.



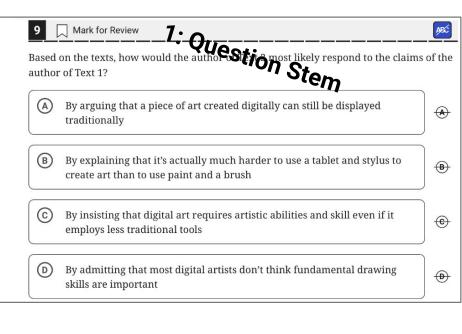


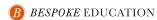
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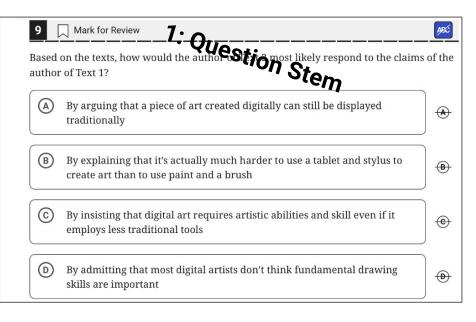


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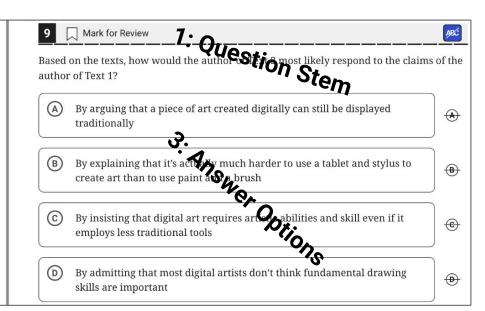


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SAT Reading Domain #1: Craft & Structure

Which choice completes the text with the most logical and precise word or phrase?

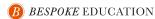
As used in the text, what does the word "_____" most nearly mean?

Which choice best describes the overall structure of the text?

Which choice best states the function of ____ in the text as a whole?

Which choice best states the main purpose of the text?

Based on the texts, how would the author of Text 2 most likely respond to the _____ presented in Text 1?



The following text is from Bram Stoker's 1897 novel *Dracula*. The narrator is being driven in a carriage through a remote region at night.

The baying of the wolves sounded nearer and nearer, as though they were closing round on us from every side. I grew dreadfully afraid, and the horses shared my fear. The driver, however, was not in the least <u>disturbed</u>; he kept turning his head to left and right, but I could not see anything through the darkness.

As used in the text, what does the word "disturbed" most nearly mean?

- A. Disorganized
- B. Alarmed
- C. Offended
- D. Interrupted

Some economic historians ______ that late nineteenth- and early twentieth-century households in the United States experienced an economy of scale when it came to food purchases—they assumed that large households spent less on food per person than did small households. Economist Trevon Logan showed, however, that a close look at the available data disproves this supposition.

Which choice completes the text with the most logical and precise word or phrase?

- A. surmised
- B. contrived
- C. questioned
- D. regretted

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5	Mark for Review	ABC				
Which choice completes the text with the most logical and precise word or phrase?						
A	surmised	⊕				
B	contrived	<u>₿</u>				
©	questioned	•				
(D)	regretted	•				



Which choice best describes the main purpose of the text?

A study by Dr. Paul Hanel and colleagues concluded that people are more likely to behave politely when listening to ideas they disagree with if they think about values before they engage in a discussion. Study participants were assigned to one of two groups. The experimental group spent a few minutes writing about one of their personal values before they had a group discussion on a controversial topic. And the control group spent a few minutes writing about a drink (tea, milk, etc.) before their group discussion on that topic. Hanel and colleagues found that the experimental group's discussion was more civil than the control group's discussion was.

- A. To describe a widely held belief and how a study's results support that belief
- B. To argue that researchers were surprised by the results of a certain study
- C. To suggest ways to improve a certain study's experimental design
- D. To explain a study's conclusion and how a research team arrived at that conclusion



SAT Reading Domain #2: Information & Ideas

Which finding, if true, would ____?

According to the text, ____?

Which choice best states/describes the main idea of the text?

What is the main idea of the text?

Which choice best describes data from the table/graph that support/weaken the conclusion/argument/hypothesis?

Which answer choice most effectively uses data from the table/graph to complete the example/statement/text?

Which answer choice most effectively uses data from the table/graph to illustrate the claim?

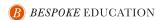
Which quotation from _____ most effectively illustrates the claim?

Which choice most logically completes the text?

Many literary theorists distinguish between *fabula*, a narrative's content, and *syuzhet*, a narrative's arrangement and presentation of events. In the film The Godfather Part II, the fabula is the story of the Corleone family, and the *syuzhet* is the presentation of the story as it alternates between two timelines in 1901 and 1958. But literary theorist Mikhail Bakhtin maintained that fabula and *syuzhet* are insufficient to completely describe a narrative-he held that systematic categorizations of artistic phenomena discount the subtle way in which meaning is created by interactions between the artist, the work, and the audience.

Which choice best states the main idea of the text?

- A. Literary theorist Mikhail Bakhtin argued that there are important characteristics of narratives that are not fully encompassed by two concepts that other theorists have used to analyze narratives.
- B. Literary theorist Mikhail Bakhtin claimed that meaning is not inherent in a narrative but is created when an audience encounters a narrative so that narratives are interpreted differently by different people.
- C. The storytelling methods used in *The Godfather Part II* may seem unusually complicated, but they can be easily understood when two concepts from literary theory are utilized.
- D. Narratives that are told out of chronological order are more difficult for audiences to understand than are narratives presented chronologically. Paris | bespokeeducation.com

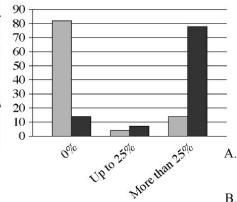


The practice of logging (cutting down trees for commercial and other uses) is often thought to be at odds with forest conservation (the work of preserving forests). However, a massive study in forest management and preservation spanning 700,000 hectares in Oregon's Malheur National Forest calls that view into question. So far, results of the study suggest that forest plots that have undergone limited logging (the careful removal of a controlled number of trees) may be more robust than plots that haven't been logged at all. These results, in turn, suggest that ...

Which choice most logically completes the text?

- A. logging may be useful for maintaining healthy forests, provided it is limited.
- B. other forest management strategies are more effective than limited logging.
- C. as time passes, it will be difficult to know whether limited logging has any benefits.
- D. the best way to support forest health may be to leave large forests entirely untouched.

Home Heating Needs Met with Subsurface Thermal Pollution for Two Temperature Conditions, by Percentage of Sites



Local heating needs met

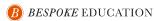
Current surface temperatureMaximum plausible surface temperature

Urbanization, industrialization, and the warming climate create thermal pollution (excess heat) in the shallow subsurface soil. Susanne A. Benz and colleagues analyzed thousands of sites on three continents under one scenario in which surface temperature remains at the current level and under another in which the surface reaches the maximum plausible temperature. They then categorized each site according to the percentage of local home heating needs that could be met using this excess subsurface heat. The team concluded that if surface temperature approaches the maximum plausible level, the percentage of sites where thermal pollution could feasibly contribute to meeting home heating needs will increase.

Which choice best describes data in the graph that support Benz and colleagues' conclusion?

Under both temperature conditions, less than 10% of sites were in the up-to-25% group, but at the maximum plausible surface temperature, almost 80% of sites could have all their local heating needs met by thermal pollution.

- At current surface temperatures, more than 80% of the sites have no need for supplemental local home heating from subsurface thermal pollution, but at the maximum plausible surface temperature, more than 70% of sites exhibit significantly greater home heating needs.
- C. At current surface temperatures, more than 80% of sites can meet, at most, 25% of local home heating needs with subsurface thermal pollution, but at the maximum plausible surface temperature, more than 80% of sites can meet greater than 25% of local home heating needs.
- D. Under both temperature conditions, less than 10% of sites were in the up-to-25% group, but at the maximum plausible surface temperature, almost 80% of sites could have all their local heating needs met by thermal pollution.



Born in 1952 in Queens, NY, filmmaker Julie Dash is most renowned for her groundbreaking 1991 film *Daughters of the Dust*, which became the first film directed by an African-American woman to receive theatrical distribution in the United States. In a paper for a film history class, a student claims that the singularity of Dash's success reveals the obstacles African-American female directors continue to face in Hollywood.

Which finding, if true, would most directly support the student's claim?

- A. Since *Daughters of the Dust*, films by African-American women filmmakers like Ava DuVernay have made millions at the box office and won Oscars.
- B. Since the release of *Daughters of the Dust*, relatively few films directed by African-American women have been distributed in wide release in the United States.
- C. Daughters of the Dust was included in the 2022 Sight & Sound poll of the 100 greatest films of all time, coming in at number 60.
- D. Following Daughters of the Dust, Dash transitioned to working mostly in television.

SAT Writing Domain #3: Standard English Conventions

Which choice completes the text so that it conforms to the conventions of Standard English?

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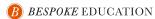
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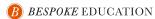


SAT Writing: Standard English Conventions

Beatrix Potter is perhaps best known for writing and illustrating children's books such as *The Tale of Peter Rabbit* (1902), but she also dedicated herself to mycology, the study of _____ more than 350 paintings of the fungal species she observed in nature and submitting her research on spore germination to the Linnean Society of London.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. fungi; producing
- B. fungi. Producing
- C. fungi producing
- D. fungi, producing



SAT Writing: Standard English Conventions

Entomologists Yash Sondhi and Samuel Fabian have tried to explain why moths fly erratically around light sources at night. Knowing that flying insects keep their backs pointed toward sunlight during the day, _____

Which choice completes the text so that it conforms to the conventions of Standard English?

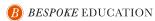
- A. the researchers theorize that moths, mistaking nighttime lights for the Sun, continually try to reorient their bodies while flying near such lights.
- B. the researchers' theory is that moths mistake nighttime lights for the Sun, continually trying to reorient their bodies while flying near such lights.
- C. moths mistake nighttime lights for the Sun and continually try to reorient their bodies while flying near such lights, the researchers theorize.
- D. moths continually try to reorient their bodies while flying near nighttime lights, the researchers theorize, mistaking such lights for the Sun.



SAT Writing Domain #4: Expression of Ideas

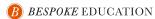
Which choice completes the text with the most logical transition?

The student wants to _____. Which choice most effectively uses relevant information from the notes to accomplish this goal?



SAT Writing: Expression of Ideas

In the 1880s, inventor Lewis Latimer improved upon Thomas Edison's				
design for the electric light bulb Latimer made the light bulb more				
durable by placing cardboard around its carbon filament. With this				
innovation, Latimer became the first Black inventor to contribute to the				
electrification of the world.				
Which choice completes the text with the most logical transition?				
A. Soon,				
B. Regardless,				
C. However,				
D. Specifically,				



SAT Writing: Expression of Ideas

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

- As engineered structures, many bird nests are uniquely flexible yet cohesive.
- A research team led by Yashraj Bhosale wanted to better understand the mechanics behind these structural properties.
- Bhosale's team used laboratory models that simulated the arrangement of flexible sticks into nest-like structures.
- The researchers analyzed the points where sticks touched one another.
- When pressure was applied to the model nests, the number of contact points between the sticks increased, making the structures stiffer.

The student wants to present the primary aim of the research study. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A. Bhosale's team wanted to better understand the mechanics behind bird nests' uniquely flexible yet cohesive structural properties.
- B. The researchers used laboratory models that simulated the arrangement of flexible sticks and analyzed the points where sticks touched one another.
- C. After analyzing the points where sticks touched, the researchers found that the structures became stiffer when pressure was applied.
- D. As analyzed by Bhosale's team, bird nests are uniquely flexible yet cohesive engineered structures.

SAT Math

Each Module:

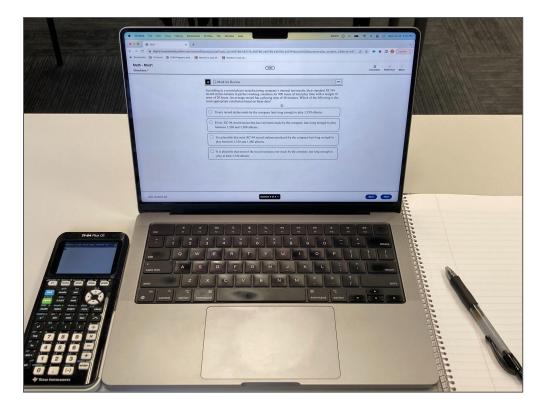
- 22 Questions
- 35 Minutes

Four Content Domains:

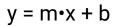
- Algebra
- Advanced
- Problem Solving & Data Analysis
- Geometry & Trigonometry

Random Content Order

Generally Increasing Difficulty



SAT Math Domain #1: Algebra

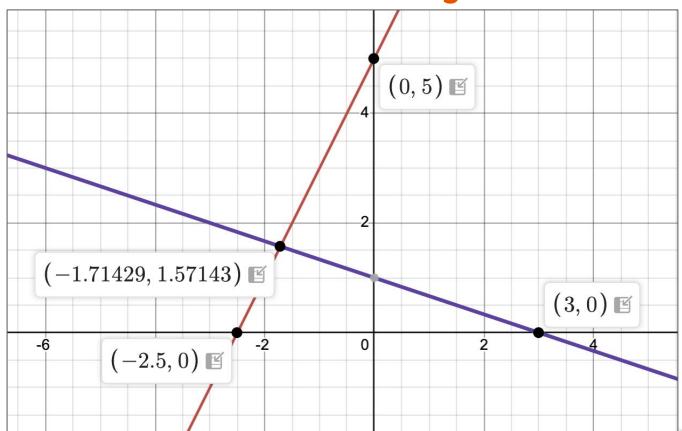


Perpendicular Slope? -1/m

$$Ax + By = C$$

Y-intercept? X = 0

X-Intercept? Y = 0





SAT Math: Algebra

Line k is defined by $y=-\frac{17}{3}x+5$. Line j is perpendicular to line k in the xy-plane. What is the slope of line j?

$$-x+y=-3.5$$
$$x+3y=9.5$$

If (x, y) satisfies the system of equations above, what is the value of y?



SAT Math: Algebra

The function h is defined by h(x) = 4x + 28. The graph of y = h(x) in the xy-plane has an x-intercept at (a,0) and a y-intercept at (0,b), where a and b are constants. What is the value of a+b?

- A. 21
- B. 28
- C. 32
- D. 35

The front of a roller-coaster car is at the bottom of a hill and is 15 feet above the ground. If the front of the roller-coaster car rises at a constant rate of 8 feet per second, which of the following equations gives the height h, in feet, of the front of the roller-coaster car s seconds after it starts up the hill?

A.
$$h = 8s + 15$$

B.
$$h = 15s + \frac{335}{8}$$

C.
$$h = 8s + \frac{335}{15}$$

D.
$$h = 15s + 8$$



SAT Math Domain #2: Advanced

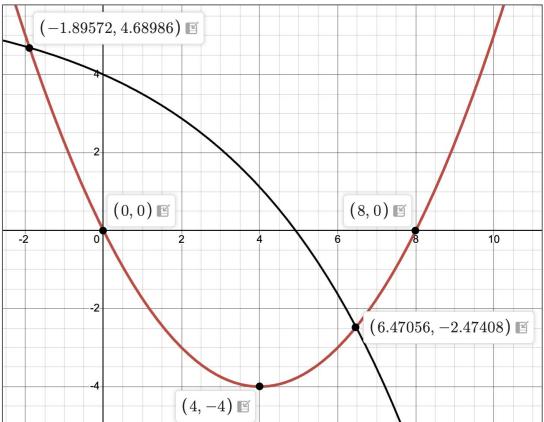


$$A(x - h)^2 + k$$

-B/2A

$$\frac{(-B + /- (B^2 - 4AC)^{1/2})}{2A}$$

$$B^2 = 4AC$$



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SAT Math: Advanced

11 Mark for Review



$$8x + y = -11$$

$$2x^2 = y + 341$$

The graphs of the equations in the given system of equations intersect at the point (x, y) in the xy-plane. What is a possible value of x?

- \bigcirc -15
- (B) -11
- (c) 2
- (D) 8



SAT Math: Advanced

22 Mark for Review

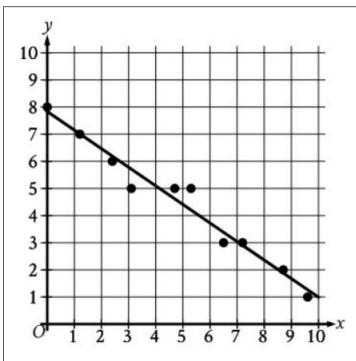


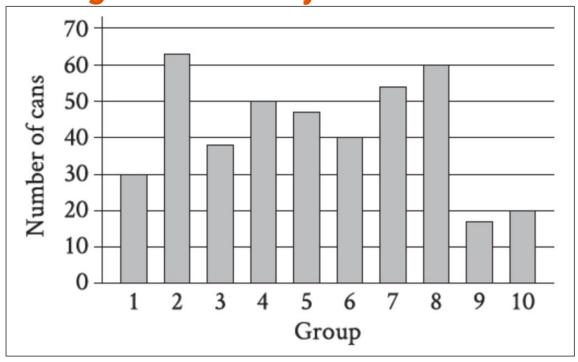
In the xy-plane, a parabola has vertex (9, -14) and intersects the x-axis at two points. If the equation of the parabola is written in the form $y = ax^2 + bx + c$, where a, b, and c are constants, which of the following could be the value of a + b + c?

- \bigcirc -23
- (B) -19
- (c) -14
- \bigcirc -12



SAT Math Domain #3: Problem Solving & Data Analysis







SAT Math: Problem Solving & Data Analysis

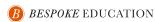
4, 10, 18, 4, 4, 5, 6, 5

What is the median of the data set shown?

- A. 4
- B. 5
- C. 7
- D. 14

What percentage of 300 is 75?

- A. 25%
- B.50%
- C. 75%
- D. 225%



SAT Math: Problem Solving & Data Analysis

The population density of Iceland, in people per square kilometer of land area, increased from 2.5 in 1990 to 3.3 in 2014. During this time period, the land area of Iceland was 100,250 square kilometers. By how many people did Iceland's population increase from 1990 to 2014?

- A. 330,825
- B. 132,330
- C. 125,312
- D. 80,200

SAT Math Domain #4: Geometry & Trigonometry

SOH CAH TOA

Triangle Angle Sum = 180°

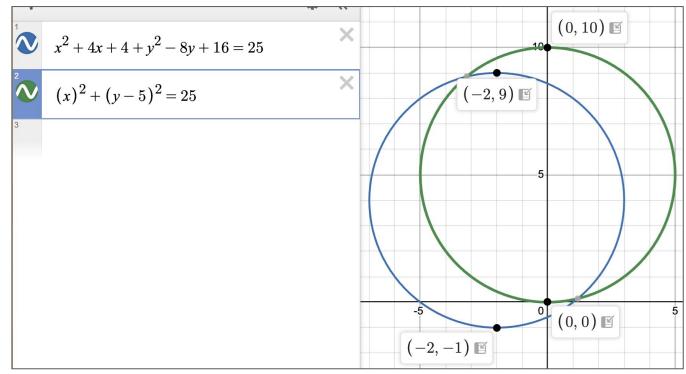
SSS, AAA, ASA, SAS, SSA

(n - 2)•180°

 $\frac{\text{Angle}}{360^{\circ}} = \frac{\text{Arc}}{2\pi R} = \frac{\text{Sector}}{\pi R^2}$

Alternate Interior Angles

Exterior Angle Theorem





SAT Math: Geometry & Trigonometry

Triangle XYZ is similar to triangle RST such that X, Y, and Z correspond to R, S, and T, respectively. The measure of $\angle Z$ is 20° and 2XY = RS. What is the measure of $\angle T$?

- A. 2°
- B. 10°
- C. 20°
- D. $40\degree$

In right triangle RST, the sum of the measures of angle R and angle S is 90 degrees. The value of $\sin(R)$ is $\frac{\sqrt{15}}{4}$. What is the value of $\cos(S)$?

- A. $\frac{\sqrt{15}}{15}$
- B. $\frac{\sqrt{15}}{4}$
- C. $\frac{4\sqrt{15}}{15}$
- D. $\sqrt{15}$

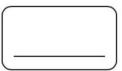


SAT Math - Geometry & Trigonometry

20

Mark for Review

The graph of $x^2+x+y^2+y=\frac{199}{2}$ in the *xy*-plane is a circle. What is the length of the circle's radius?





Bespoke Digital Score Report

Question Analysis (Reading and Writing)										
Craft & Structure Information & Ideas Standard English Conventions Expression Of Ideas										
		Q - Question A - Answer			S - Student Answer Vs P - Vs Par				Vs P - Vs Par	
Reading and Writing - Module 1					Read	ding ar	nd Writing -	- Module 2 (E)		
	Q	Α	S	Vs P	Tags	Q	Α	S	Vs P	Tags
	1	Α	-	+1m33s	WIC, HSS	1	С	-	+1m31s	WIC, HSS
	2	C	-	+1m43s	WIC, HSS	2	Α	-	+1m8s	WIC, HUM
	3	C	-1	+1m50s	WIC, HUM	3	D	-	+1m2s	WIC, SCI
	4	D		+1m23s	WIC, SCI	4	C	-	+1m22s	WIC, SCI
	5	C	-	+1m21s	WIC, LIT	5	C	-	+1m7s	WIC, HUM
	6	Α		+2m17s	TSP, LIT	6	В	-	+1m22s	TSP, LIT
	7	D	_	+2m24s	TSP, HSS	7	D	_	+1m11s	TSP, SCI
	Q	D	<u> </u>	11m16c	TCC LIT	Q		920	±1m22c	CTC SCI

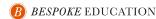


Bespoke Digital Score Report

Category Analysis

Reading and Writing Category	#Qs	Vs Par
Craft & Structure (CAS)	0/16	+24m22s
Words In Context (WIC)	0/10	+14m0s
Text Structure & Purpose - Structure (TSS)	0/1	+1m46s
Text Structure & Purpose - Purpose (TSP)	0/4	+7m14s
Cross-Text Connections (CTC)	0/1	+1m22s
Information & Ideas (IAI)	0/14	+16m32s
Central Ideas & Details - Main Ideas (CDM)	0/1	+1m56s

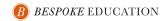
Math Category	#Qs	Vs Par
Algebra (ALG)	0/16	-20m54s
Solve For Variable / Plug In Value (SOV)	0/3	-32m6s
Algebraic Modeling (MOD)	0/4	+4m3s
Y = MX + B (YMB)	0/5	+4m42s
Linear Inequalities (INQ)	0/2	+1m21s
System of Equations - Linear (SEL)	0/2	+1m6s
Advanced (ADV)	0/13	-16m42s
Simplifying & Manipulating (SAM)	0/2	+3m6s
Quadratic Equations & Functions	0/7	-27m45s



Preparing for the SAT

- Prep Targets:
 - Memory
 - Habits
 - Strategies
 - Reflex Responses
- What Does Test Trep Involve?
 - Learning
 - Studying
 - Focused practice
 - Reflective review

- Long Term Change
 - Sports / Musical Instrument
 - Cramming
- Make a Schedule
 - Consistency beats volume
 - Regularity is key
 - Think of test prep as another course
 - ~25 minutes of HW on most days
 - Practice tests are essential
- Be Patient: Improvement Takes Time





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Thank you!

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