Features chapters on summary guidelines for each section of the test

SAT EBOOK

SECOND EDITION

A summary of guidelines and more for each section of the SAT test.

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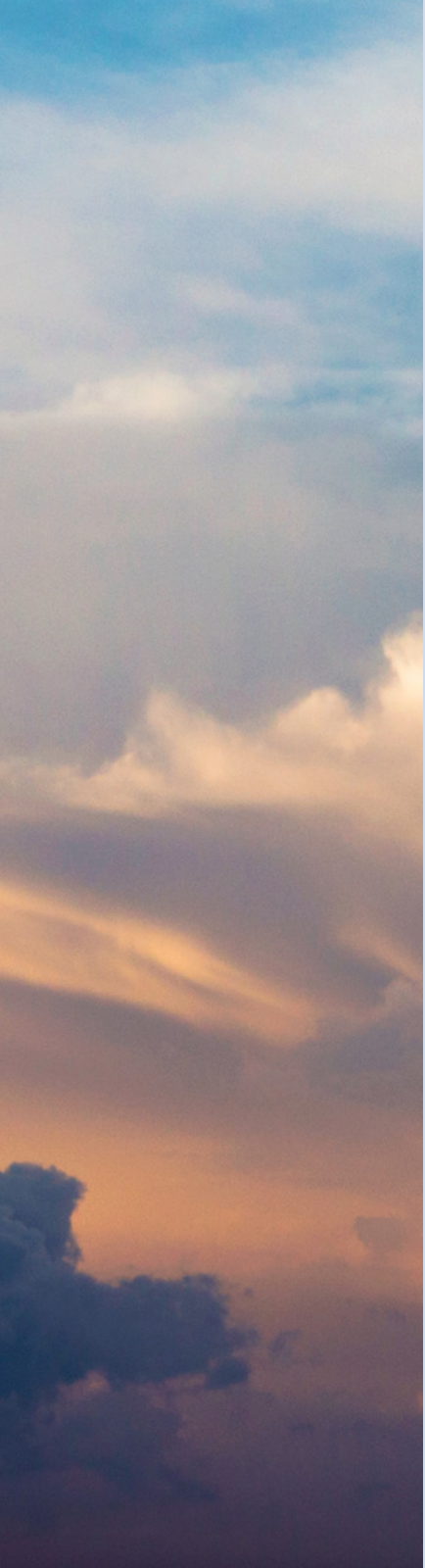

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CHAPTER 1

READING SECTION

EVIDENCE BASED READING SECTION CHART

The following highlights the outline of the evidence based reading section of the SAT 1.

Test type	Time	Number of questions	Types of questions	Style of passage
Evidence Based Reading	65 mins	52	Multiple choice All questions will be related to the reading passage	Some passages are paired with other passages. Graphic organizers, such as tables, graphs, and charts, may be part of some passages—but no math is required to understand these organizers.

CHAPTER 1.1

READING PASSAGE TYPES

EVIDENCE BASED READING SECTION

The reading passages on the SAT may consist of the following;

- *One passage from a classic or contemporary work of U.S. or world literature.*
- *One passage or a pair of passages from either a U.S. founding document (ex. The U.S. Constitution) or a text in the Great Global Conversation (Artificial Intelligence) they inspired.*
- *A passage about economics, psychology, sociology, or some other social science.*
- *Two science passages (or one passage and one passage pair) that examine fundamental concepts and developments in Earth science, biology, chemistry, or physics.*

CHAPTER 1.2

READING PASSAGE TYPES

WHAT THEY MEASURE

The following highlights the key information to focus on in the evidence based reading section of the SAT 1.

Command of Evidence	Words in Context	Analysis in History / Social studies and Science
Improve on how you look for important details (or evidence) that support (or connects to) statements (or informational graphics) present in the reading	Focus on how to recognize words and phrases commonly used in society and how(and why) they appear in relation to content material in any subject. Context clues tend to be culture based, therefore become more familiar with the American culture in terms of the subject to better recognize different context clues.	You will need to have a general understanding of important and universally recognized historical, social, and scientific events that are part of the United States. When reading passages connected to these subjects focus on important strategies used to highlight key information. (ex. timelines in history, experiments for science, landmarks for social studies.)

Final notes...

To save time, test takers should start by underlining key words in the questions and relate them to the paragraphs in the passage.

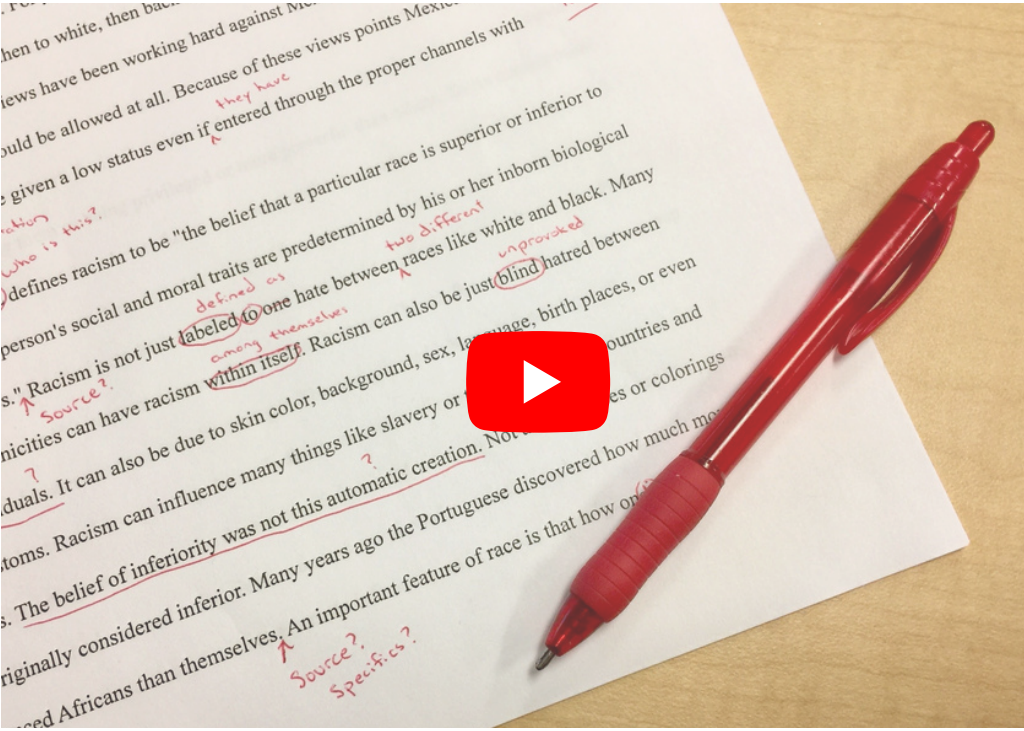
It is better to read paragraph by paragraph instead of the whole passage.

You will see that reading questions match the reading content they reference. For example question 1 relates to paragraph 1.

You should use skimming and scanning to help you find the key information from the passage to answer the questions.

DO NOT SPEND TIME REREADING THE PASSAGE!

Use active reading the first time you read the passage in order to highlight key pieces of information.



CHAPTER 2

WRITING SECTION

EVIDENCE BASED WRITING SECTION CHART

The following highlights the outline of the evidence based writing section of the SAT 1.

Test type	Time	Number of questions	Types of questions	Style of passage
Evidence Based Writing	35 mins	44	Multiple choice	You won't be asked to write anything in this section, instead you will be expected to answer questions about grammar, vocabulary and sentence structure mistakes in the given writings. Essentially you will be an editor to the writings presented to you. So work on your editing skills!

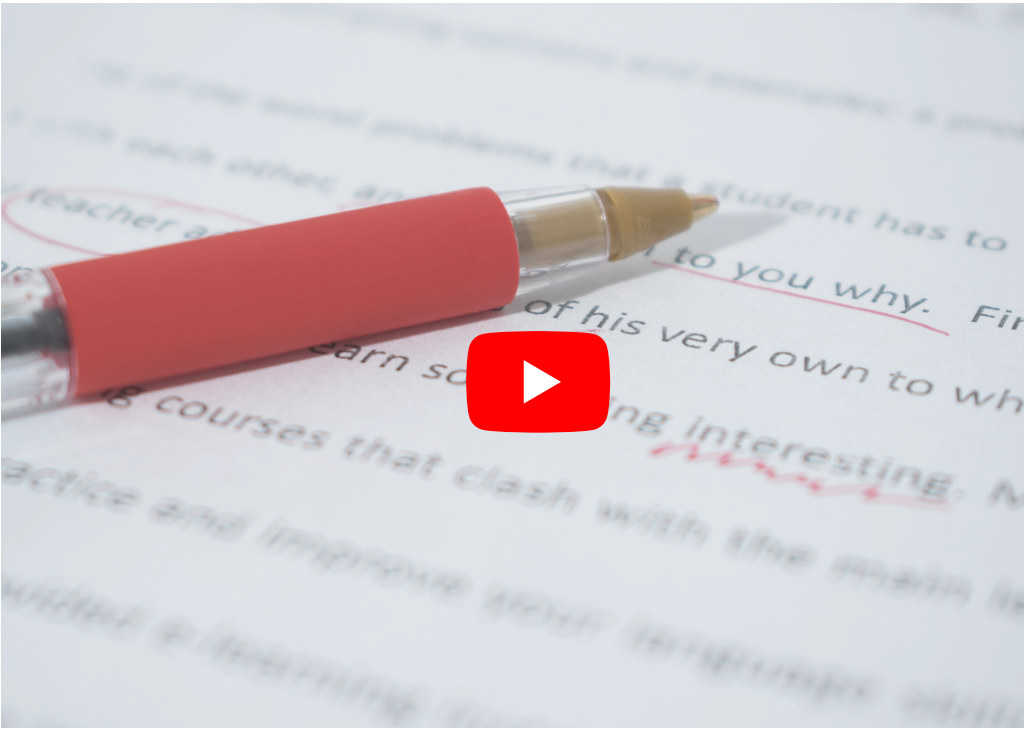
CHAPTER 2.1

WRITING PASSAGE TYPES

WHAT THEY CONSIST OF

*The following highlights **tasks** associated with the types of reading passages presented in the evidence based writing section of the SAT 1.*

Command of Evidence	Words in Context	Analysis in History / Social studies and Science
You will be asked to add clarity to the way the passage develops information and ideas. (ex. making an argument stronger)	You will be asked to select word choice that improve the writing in order to add a more concise meaning to the writing. (ex. Allow the meaning of the sentence to become easier to understand)	You will be asked to edit passages on to allow for better understanding of the topics. (ex. Improve the how the passage communicates its message)



CHAPTER 2.2

WRITING PASSAGE TYPES

WHAT THEY MEASURE

The following highlights the key information to focus on in the evidence based writing section of the SAT 1.

Expression of Ideas	Standard English Conventions
You will be asked to make some improvements to the organization of the passage to help make the expression of ideas clearer.	You need to know the basics of sentence structure in this section as you may be asked to change words, the use of punctuation, and even the sentences themselves. Become more familiar with the variety of sentence structures (ex. simple, compound, and complex sentences and when best to use them in your writings).

Final notes...

To save time, test takers should start by underlining key words in the questions and relate them to the paragraphs in the passage.

It is better to read paragraph by paragraph instead of the whole passage.

In the passages, look for key transition words that help with fluency. This will help with expression of ideas.

Questions on the standard English conventions highlight your understanding of grammar and punctuation rules!

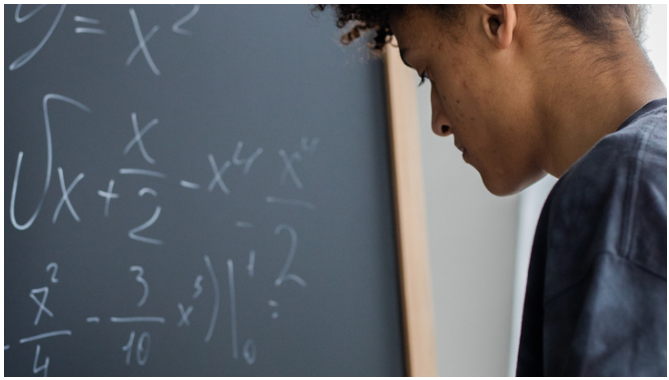
Study the rules before hand since this is the only thing you are expected to know before taking the test!

CHAPTER 3

MATH SECTION

THE GOAL OF THE MATH SECTION

The SAT 1 Math section is designed to test your abilities in applying mathematical strategies when it comes to problem solving and modeling designs in the real world.



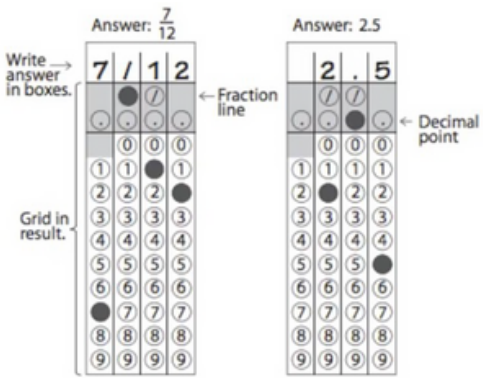
CHAPTER 3.1

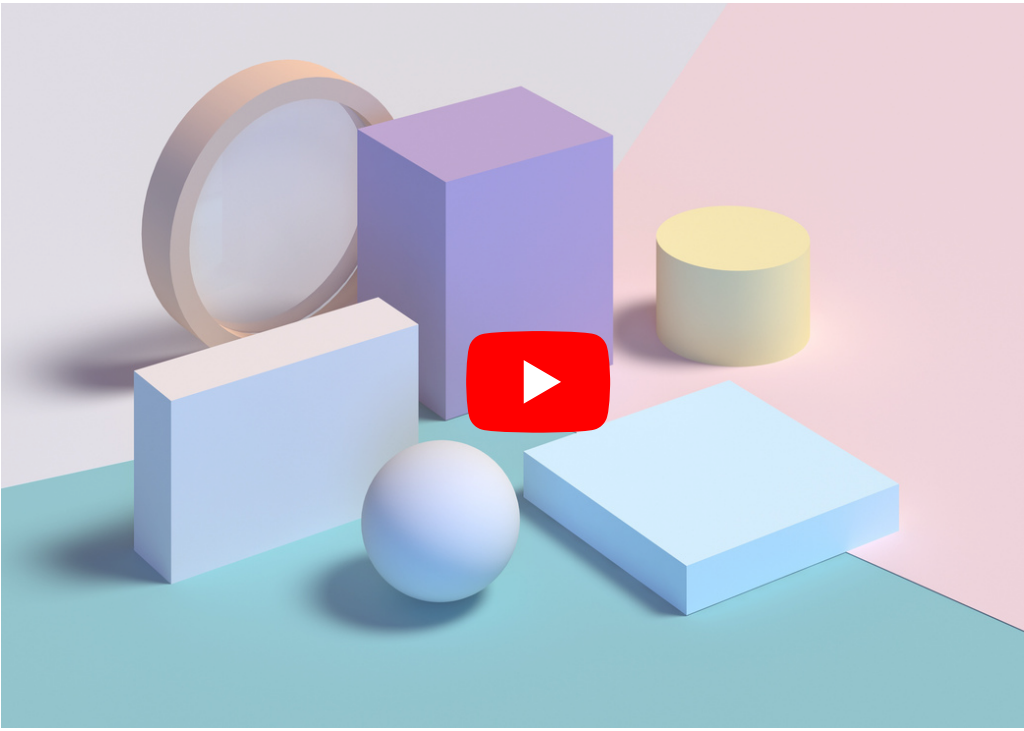
MATH SECTION TASKS

THE 'GRID RESPONSE'

The majority of questions will be multiple choice, but some ask you to calculate your answer and then place it in a "grid".

The answer to each gridded-response question is a positive number. For example, a positive fraction, decimal, or integer. You will enter it on the answer sheet into a grid like this one.



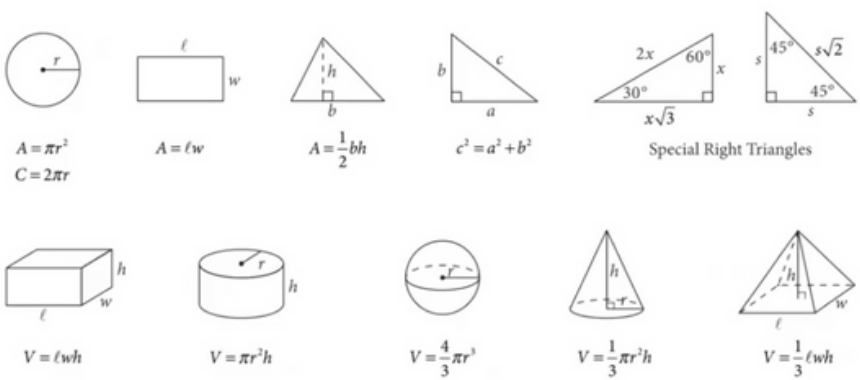


CHAPTER 3.2

MATH SECTION TASKS

A REFERENCE GUIDE

The SAT does offer students a reference guide, as shown below, to the standard formulas used in geometry.



CHAPTER 3.3

MATH SECTION TOPICS

AREAS OF FOCUS

The majority of the questions (about 80%) focus on the three areas of math that are most common in a wide range of college majors and careers.

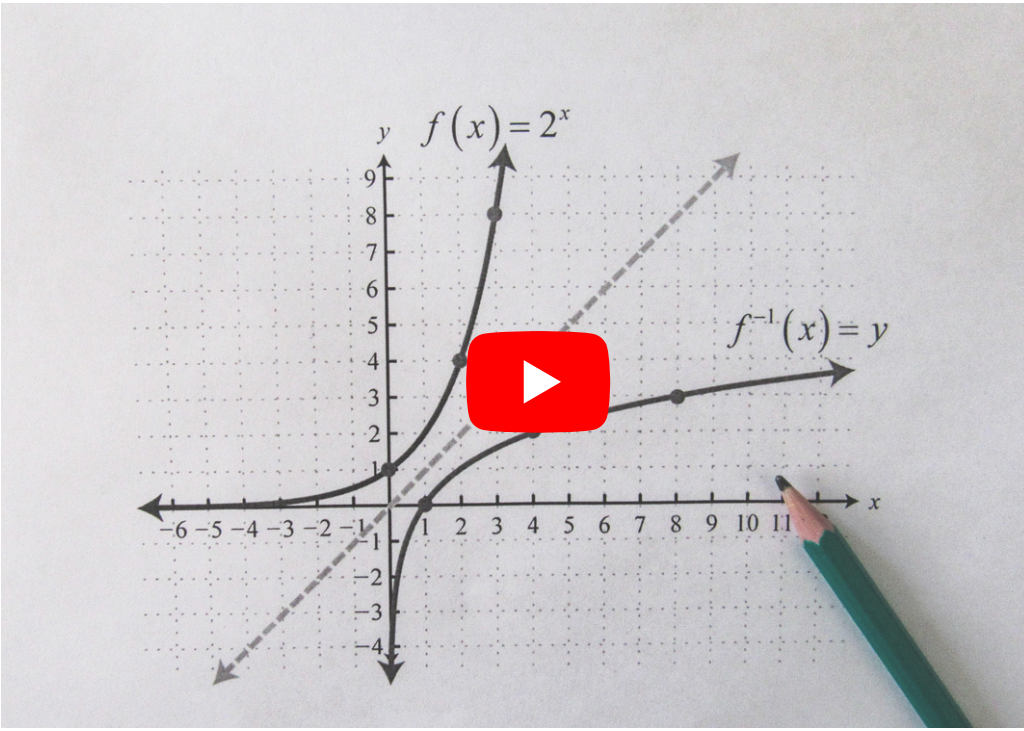
They include;

Heart of Algebra *- focuses on linear equations and systems.*

Problem Solving and Data Analysis *- focuses on ratios, proportional reasoning, and percentages.*

Passport to Advanced Math *- focuses on the use of complex equations and functions.*

The remaining 20% draws on ***Additional Topics in Math*** *including geometry and trigonometry most relevant to college and career readiness.*



CHAPTER 3.4

MATH SECTION TOPICS

HEART OF ALGEBRA

These questions often seem harder than they actually are. Take a look at the following sample question.

Sample Question;

The simplest strategy to use would be eliminate choices that are not possible. (B) & (C) are out since the first value is not met. Then you are left with choice (A) and (D). We see that (A) is not possible as it fails in the second value of t.

Therefore, the answer would be (D)

t	0	1	2	3
$f(t)$	−1	1	3	5

The table above gives values of the function f for several values of t. If the graph of f is a line, which of the following defines $f(t)$?

(A) $f(t)=t-1$
(B) $f(t)=t+1$
(C) $f(t)=2t+1$
(D) $f(t)=2t-1$

To succeed in this section you must demonstrate your ability to analyze, fluently solve, and create linear equations and inequalities.
Questions may be straightforward with no need for a calculator, or they may require further analysis with the use of a calculator.

CHAPTER 3.5

MATH SECTION TOPICS

PROBLEM SOLVING & DATA ANALYSIS

Problems in this category will require significant critical thinking skills when it comes to the use of ratios, rates, and proportional relationships.

In most questions, you will need the use of your calculator to make calculations easier for you, however in some cases using a calculator may not be necessary.

Lengths of Fish (in inches)						
8	9	9	9	10	10	11
11	12	12	12	12	13	13
13	14	14	15	15	16	24

The table above lists the lengths, to the nearest inch, of a random sample of 21 brown bullhead fish. The outlier measurement of 24 inches is an error. Of the mean, median, and range of the values listed, which will change the most if the 24-inch measurement is removed from the data?

A) Mean
B) Median
C) Range
D) They will all change by the same amount.

Sample Question;
First we need to know important vocabulary such as; **outlier, mean, median, and range**. We also need to know how to calculate mean, median, and range. We see that range is calculated by finding the difference between the highest and lowest values, and therefore by removing 24, we will find **range** changing the most. **Therefore, the answer is (C).**

CHAPTER 3.6

MATH SECTION TOPICS

PASSPORT TO ADVANCED MATH

Questions in this section explore the more advanced topics in math for career choices in STEM - Science, Technology, Engineering, and Mathematics, however understanding how to solve these questions doesn't have to seem overly complicated.

This section focuses on the use of graphing of quadratic equations or exponential functions.

Sample Question;

Start with what you know, we know that
a + b = 8 ; ab = 15; therefore a = 3 or 5, b = 3 or 5
When we place the values for a & b in the nonlinear equation we get either;

(i) $(3x + 2)(5x+7) = 15x^2 + 31x + 14$
or
(ii) $(5x + 2)(3x +7) = 15x^2 + 41x + 14$

Therefore the answer is (D).

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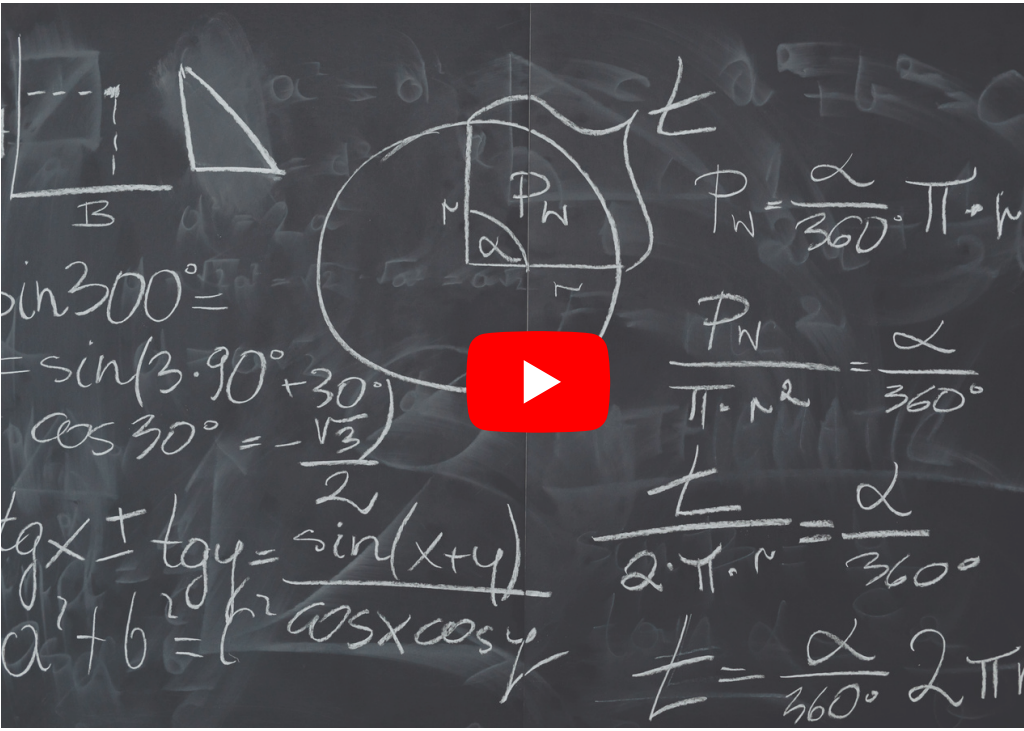
If $(ax + 2)(bx + 7) = 15x^2 + cx + 14$ for all values of x, and $a + b = 8$, what are the two possible values for c ?

A) 3 and 5
B) 6 and 35
C) 10 and 21
D) 31 and 41



CHAPTER 3.7

MATH SECTION TOPICS

ADDITIONAL TOPICS IN MATH

This section includes essential geometric and trigonometric concepts and the Pythagorean Theorem.

These questions only represent 20% of the exam, however it is good to practice solving them.

Question problems may involve;

- *area and volume*
- *right triangle trigonometry*
- *working with complex numbers*
- *properties and theorems relating to circles.*

Sample Question;
This is a recall of the properties relating to circles;
We know the general formula for a circle equation is;
$(x-h)^2 + (y-k)^2 = r^2$
r = radius
Therefore the square root of 36 is 6, and so the answer is C.

A circle in the xy-plane has equation $(x-3)^2 + (y-4)^2 = 36$. What is the radius of the circle?

Choose 1 answer:

(A) 3
(B) 5
(C) 6
(D) 18

Final notes...

Practice answering questions you know so you can refine your basic skills and look to similar questions to help build confidence

Build skill mastery by focusing on key concepts in response strategies

Highlight key pieces of information in questions and highlight where they can be found in the solution

Eliminate wrong responses as they are easier to spot

Practice questions to help diagnose where you are having trouble

Remember all solutions come down to basic calculations in math: addition, subtraction, multiplication, or division

Links to practice tests

Thank you for taking the time to learn more about the SAT test with me.

The material presented in this ebook is meant to be a guide in helping individuals prepare to take the SAT test.

Visit the Edukitchen website to find useful links to help you with practice guides in helping you to answer the SAT questions for each section of the test.

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