

A guideline for how long to study is above. Ivy Bridge has three fundamentals with an 8 point attack. [Click here for a full explanation of our system.](#)

Fundamentals

1. Master the [concepts tested](#)
2. Master the strategies that beat the test
3. See the test through the eyes of the test architects

8 Point Attack Plan for each subject

- Global Strategies
- Introduce Essential Material
- Drill The Subject Matter
- Exposure To Their Tricks
- Specific Strategies To Beat Their Tricks
- Be The Test Maker
- Homework
- Break The Block

Above is the general method of Ivy Bridge Preparation. Let's see examples by [section](#) of how the test tries to trick you and how we help you.

No outside knowledge is required on the SAT

Reading: This section is based on a variety of skill evaluations such as the ability to recognize key points, make generalizations from the evidence, decide what evidence supports a conclusion, consider the author's intentions, extrapolate data from charts & graphs and occasionally predicting how the passage or author might fit into criteria outside of the passage based on its characteristics.

How does the test trick you?

The passages are not nearly as difficult as those on graduate school exams like the MCAT, GRE, LSAT and GMAT. Therefore, test makers confuse the student and use his/her limited time with some trick questions and many types of trick answers like part-right part-wrong, true-but-unrelated, outside the line range of the question, too literal, too specific or too general, extreme language, and recycled language.

How do we help?

Many competitors can over a long period of time improve a student's reading comprehension (and other basics) using traditional approaches and copious repetitive drills. Ivy Bridge will improve the student's reading comprehension ability with a variety of the best methods and most efficient tactics. Additionally, Ivy Bridge focuses heavily on test taking strategy. We are the experts at pointing out each type of trap so that the student can systematically recognize and avoid them. Of course, we also show what good answer choices look like—Must be true using broad, inoffensive, and/or synonymic language. And in terms of global strategy, Ivy Bridge instructs students how to master the passage's material quickly and manage the question order so the student has the time he/she needs to process and eliminate the trap answers, ultimately making the best selection. Lastly, the Ivy Bridge will guide students through the SAT questions that are not standard reading comprehension but based on visual data or paired questions asking about how a line in the passage supports another answer.

Questions 11-21 are based on the following passage.

This passage is adapted from Daniel J. Boorstin, *The Creators: A History of Heroes of the Imagination*. © 1992 by Daniel J. Boorstin.

The great works of Greek temple architecture were made to be viewed from the outside, not to be experienced from within. In one of the grand revisions of the creative imagination, the Romans would change all this. They built an architecture of interiors, of vast enclosed spaces. And this was a new kind of space—within arches, vaults, and domes, in omnipresent dominating curves, where walls became ceilings, and ceilings reached up to the heavens. The artificial world, the world of interiors that architects would make for man, was transformed into a new curvesomeness. The classic Greeks had gathered out in the open air. Roman architecture brought people indoors to share their public and exchange their private concerns.

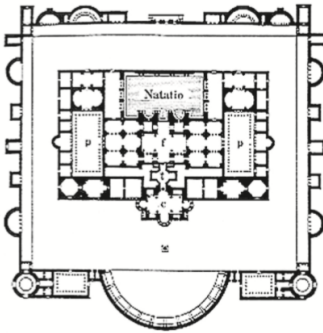
This grand Roman innovation in architecture would be accomplished in two centuries as the essential ingredient, concrete, was perfected gradually by trial and error.

The Roman Empire had brought cities into being and created a far-flung urban culture with common needs. And the new architectural creations arose from the needs of these Roman cities. While the glory of classic Greek architecture was in its temples to gods and civic deities, the grandeur of Roman architecture began in the public baths. How and why Romans acquired their mania for public baths remains a mystery. But its signs were everywhere.

Some of the earliest were the grand Stabian baths of the second century B.C. at Pompeii, with elegant arches and a soaring conical dome topped by a central opening that anticipated one of the most appealing features of the Pantheon three centuries later. Grand public bath buildings sanitized and enriched urban life all across the Roman provinces. Besides the *balneum*, or private bath, found in the town houses and country villas of wealthy Romans, there were the *thermae*, or public baths. Some historians count these among “the fairest creations of the Roman Empire.” During the second century B.C. they multiplied at a great rate in Rome. It became common for a public-spirited citizen to make a gift of a public bath building to his neighborhood. Others were built commercially by contractors who hoped to make a profit from admission fees. Agrippa’s census (33 B.C.) counted 170 such establishments in Rome, and a century later Pliny the Elder (23 A.D.—79

A.D.) had to give up counting. Soon there were nearly a thousand. When Pliny the Younger arrived for a brief stay at his country villa near Ostia, and did not want to fuel his own furnaces, he found “a great convenience” in the three public baths in the neighboring village.

The essentials of a public bath were quite the same everywhere—a changing room, a sweating room heated by hot-air passages under the floor or in the walls, a large vaulted hall gently heated with intermediate temperatures, an unheated frigidarium partly open to the sky with a cold plunge, and a rotunda heated by circulating vapor, open at the top to admit sunlight at noon and in the afternoon. In addition, there were swimming pools. Nearby areas provided for strolling, for conversation, for sunning, for exercise, for various kinds of handball, hoop-rolling, and wrestling. Attached were concert halls, libraries, and gardens. The baths at their best were public art museums and museums of contemporary art. To them we owe the preservation of some of our best copies of Greek sculpture and our great treasures of Roman sculpture.



p Palaestra f Frigidarium t Tepidarium c Caldarium

Rome, Baths of Diocletian

CONTINUE

14

The author implies that which of the following was critical to Roman architectural developments?

- A) The need for large, interior spaces where urban culture could be expressed
- B) The convenience of public baths to people of all social strata
- C) The development over time of construction techniques using concrete
- D) The rapid expansion of baths into community and cultural centers

15

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

- A) Lines 5-6 (“They . . . spaces”)
- B) Lines 15-18 (“This . . . error”)
- C) Lines 22-27 (“While . . . mystery”)
- D) Lines 42-47 (“Others . . . thousand”)

Here is an example of a paired question, which consists of the second question justifying the answer of the previous question. If your reading comprehension is at the level of understanding why authors write the way they do, then these questions will generally be friendly, and on the rare occasion you struggle, you can use one answer to help you find the other.

Answer A is a common type of trap answer called “recycling language” where the test maker takes a true statement or the same words found in the passage and makes an answer that either loses the meaning found in the passage (when they change the words around) or does not answer the question as in our example of question 14.

Answer B has some extreme language with the word ‘all’ and it also fails because it is an example of the type of wrong answer Ivy Bridge calls ‘true, but unrelated’.

Answer D is not mentioned at all, thus is outside of the passage, leaving us with 'C' which is stated and directly answers the question about what was Necessary (critical) to the Development. The other functions and desires of architecture are subordinate to the ability to create the baths.

Now we look at question 15. Since we know Answer C is correct for 14, answer B must be correct and it could only have been matched with C. However if we were to look at matching Answer A from both 14 and 15, we should notice a problem. There is nothing about urban culture in the evidence for 15A or about a need. This type of working backwards can be useful when the original question's answer is not immediately obvious.

21

Which of the following is supported by information in both the passage and the diagram?

- A) Roman baths usually included frigidariums.
- B) The palaestrae were located on opposite sides of the building.
- C) Commercial contractors always built public baths in a rectangular shape.
- D) The natatio was often used for wrestling and hoop-rolling.

B and D are probably true, but not demonstrated explicitly in both the diagram and passage. C has extreme language Always, which is nearly Always wrong. A is stated in the passage and represented on the diagram and also uses the soft language (non-extreme or offensive) of usually.

Writing:

This section primarily tests a students' knowledge of the rules of English grammar. Although secondary, their ability to make stylistic decisions as well as their reading comprehension and graphical interpretation skills will be assessed. There are many rules tested, but certain rules are challenged far more than others. In addition to the knowledge of grammar, there are of course tricks that the test makers use. Two of the most popular are relying on a colloquial fault and changing the meaning of the sentence.

How does the test trick you?

The Writing section employs many tricks, the primary two of which are playing on what sounds correct to the test taker when spoken but is not correct grammatically and separating the tested concept from what is important with long, irrelevant information. Additionally, the test uses idioms, spelling errors (diction), graphs, reading comprehension and almost completely correct answers to trap students.

How do we help?

Ivy Bridge ensures that students know all the tested grammar rules, the frequency of each and how to recognize when certain rules are tested. We expose them to every type of style question—including the visual information problems—and explain how to tackle edit these properly. Of course, there are strategies for elimination such as when two answers are essentially the same or which kinds of answers to favor when asked how an author perceives his/her piece: to change, add, subtract or make a point. For example

[1] At the Department, however, Amanda learned about prisoners' rights. [2] Or, by the same token, when was the use of force appropriate from the officers? [3] There is a clear provision in the Constitution that prohibits "cruel and unusual punishment." [4] The meaning of these four words **5** were nowhere more ambiguous than in prisons. [5] Everyone within these walls had been convicted of a crime and was now paying **6** they're debt to society, but how could a government ensure that the place would deliver the "reform" in a reformatory or the "penitence" in a penitentiary? [6] Should inmates with, for example, mental illnesses be treated differently from others? **7**

I want the below paragraph to appear like the one above with the grey background numbers next to the underlined word and the font etc.; **note the changes** I made.

[1] At the Department of Corrections, however, Amanda learned about prisoners' rights. [2] Or, by the same token, when was the use of force appropriate from the officers? [3] There is a clear provision in the Constitution that prohibits "cruel and unusual punishment." [4] The meaning of these four words were nowhere more ambiguous than in penitentiaries. [5] Each of the prisoners within these walls had been convicted of a crime and was now paying they're debt to society, but how could a government ensure that the place would deliver the "reform" in a reformatory or the "penitence" in a penitentiary?

See how I did the ACT one. Have a link between the two that reads “See more types of tricks that are on this test as well as the SAT/ACT (depending on the page)”

5

- A) NO CHANGE
- B) have been
- C) are
- D) is

6

- A) NO CHANGE
- B) their
- C) there
- D) his or her

7

In the sequence of the paragraph, the best placement for sentence 2 would be

- A) where it is now.
- B) before sentence 1.
- C) after sentence 3.
- D) after sentence 6.

7.

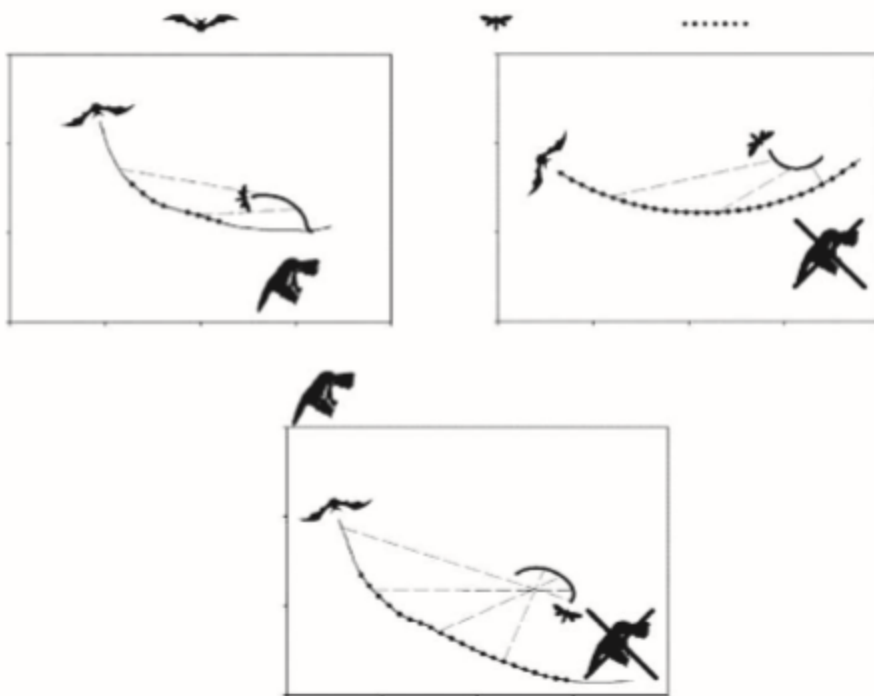
5. Notice the filler between the subject and verb. The verb is not an action verb, making it harder to recognize. While A, B, and C are different in terms of tense, they are identical in terms of plural/singular. If tense isn't the issue (it's not) then there is only one choice (D).

6. Colloquially, it *sounds good* as written. But even if we know that 'they're' is wrong, we still have two more spellings to choose from. And again, the word 'prisoners' is plural, so it *sounds good* to have a

plural. The test makers know that. But 'Each' is the key word, and it is always singular. The answer, is D.

7. Do not always assume that something needs to change. This question is an example of a style question, where reading comprehension is tested.

One species, the tiger moth *Bertholdia trigona*, has done even better. This species emits a high-frequency clicking noise that throws off the bat's sonar altogether. While no one is certain exactly how these clicks camouflage the *B. trigona*, the clicks have been remarkably successful in defending the moths from bat attacks. Some suggest that the clicks force bats to misinterpret their sensory data, taking the moth clicks for their own echoes. As a result, bats **43** miss their prey at the moment of attempted capture, and the tiger moths flit away unharmed. **44**



This image adapted from the *Journal of Experimental Biology* © 2011.

Please remove the number 44 from the end of the paragraph.

Which of the following provides accurate information based on the diagrams?

- A) NO CHANGE
- B) attack other animals they find easier to detect,
- C) fly after one another, bonking their heads together,
- D) hear no sounds at all,

43. The SAT also has reading comprehension and graphical interpretation on its Writing section. The answer is A because the bat's trajectory follows the signals given by the moth. Also, in general, avoid silly answers like C or extreme/outside answers like D.

Math

The questions at the beginning of this section test basic math knowledge with few tricks. The middle ones also test basic math knowledge, yet with many tricks. The end of the section has the hard questions which are difficult due to tricks, higher level math concepts tested and time consumption.

How does it trick you?

Answers that are correct if a common careless error is made, have a lot of vocabulary and wording in the question, misdirection in what the question is asking for and misleading figures (usually not drawn to scale).

How do we help?

Many students who are great at math still miss easy or medium questions because of the trap answers; the student knows the basic math required from the question but then falls for the trick built into the question, answers or both. Ivy Bridge not only teaches how to avoid the traps, but also how to minimize the time it takes to answer the questions by looking at the questions strategically (big picture) first and eliminating wrong answers.

$$\left(\frac{x}{3}\right)^2 + \left(\frac{x}{5}\right)^2 = \frac{1}{3}$$

10. Two fungal species of *Aspergillus flavus*, AF-36 and AF-42, were grown in liquid cultures at a temperature of 37° C and spun at 60 rotations per minute. The AF-36 culture grew at a slower rate than did the AF-42 culture, and together the cultures produced in 3 days the amount of fungus required for experiments. The equation above represents the experiment described. Which of the following describes what the expression $\left(\frac{x}{5}\right)^2$ represents in this equation?
- A) The average amount of AF-36 fungus that is produced in one day
 - B) The time, in days, that it takes for AF-36 to produce the total amount of fungus alone
 - C) The time, in days, that it takes for AF-42 to produce the total amount of fungus alone
 - D) The average amount of AF-42 fungus that is produced in one day

This doesn't even look like a Math problem! Which in a way, is good because you cannot use your calculator nor would you want to.

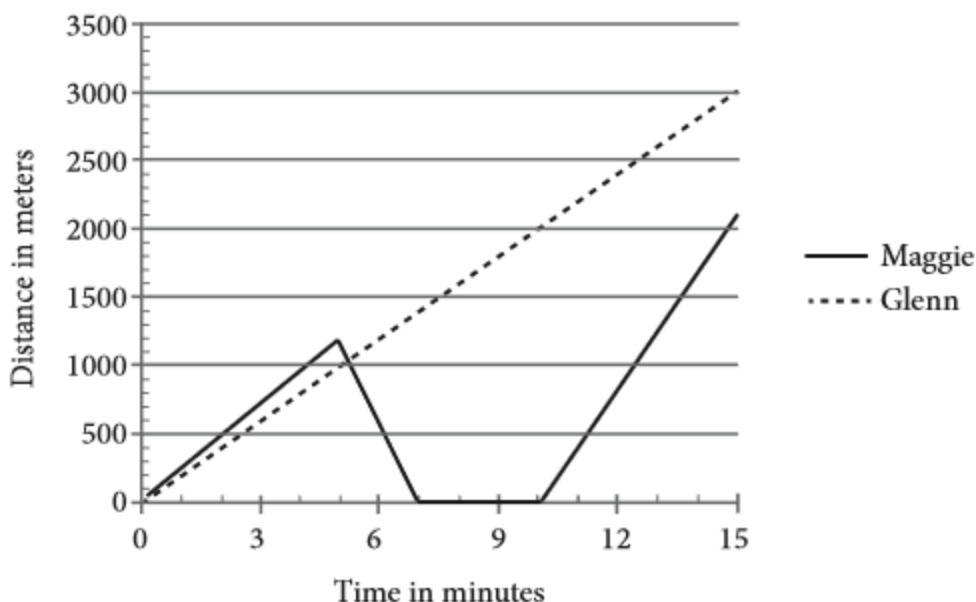
This problem found in the math section probably is unlike any you have seen in a math class as well as a science class (and no, this is not the type of problem found on the ACT science).

The trap here is to waste your time rather a tricky answer or tricky question.

Let's read carefully, especially about what the equation describes. It is for an **amount** so we can eliminate anything with time. That is quickly eliminating two answers.

Dividing by a larger number smaller, and we know that there is less AF-36 fungus. Therefore A is correct.

Maggie's and Glenn's Distances from Home During Jog



Maggie and Glenn both leave from the same house to go for a jog along a trail. Shortly after leaving, Maggie realizes she forgot her iPod and returns home to find it before heading back out onto the same trail. The graph above shows how far each of them is from home for the first fifteen minutes of their jogs.

What is Glenn's approximate average speed in meters per second for the portion of his jog shown?

- A) 3.3
- B) 15
- C) 200
- D) 12,000

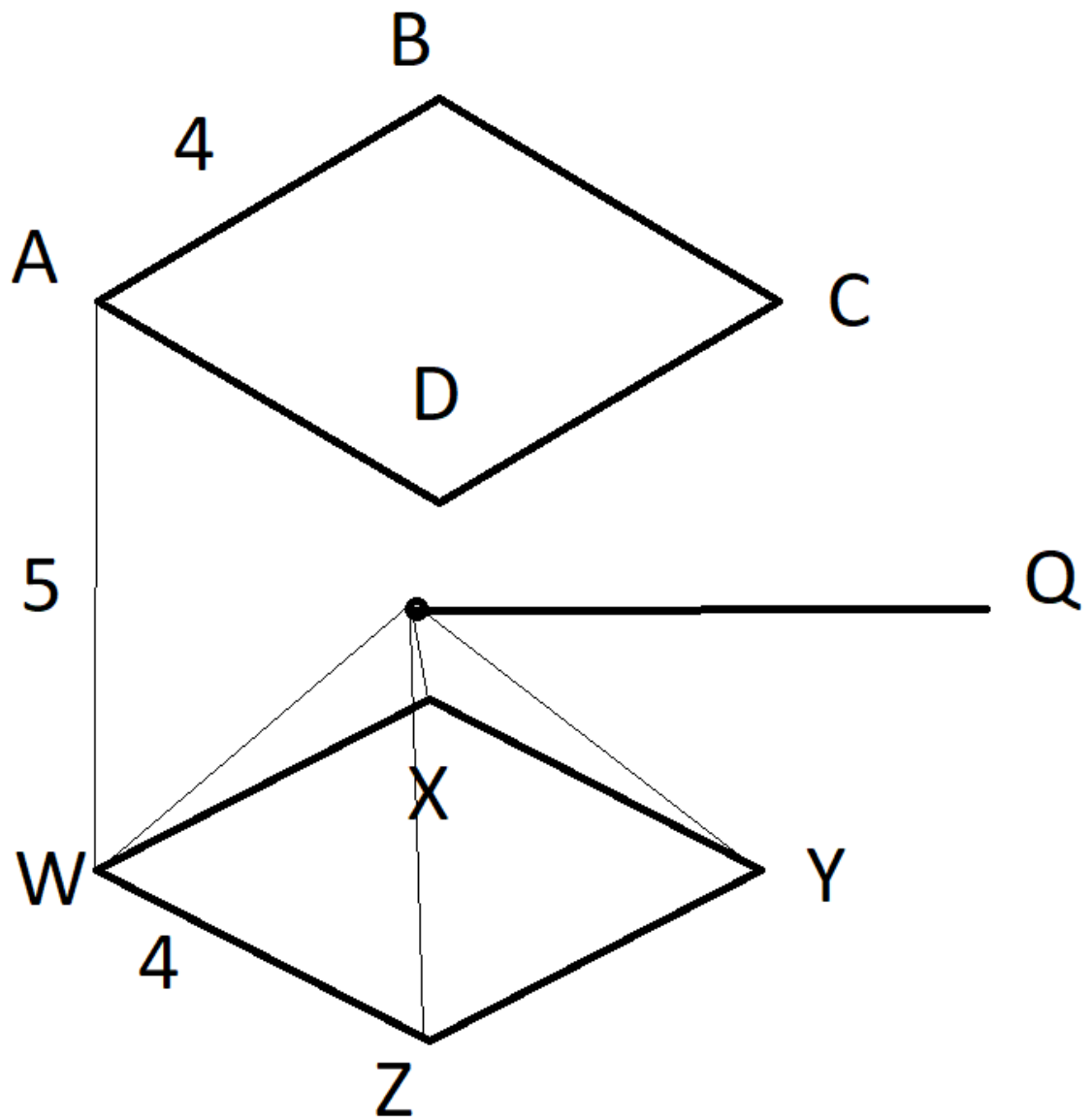
Here is a question that tries to trick us with extra information as well as an answer in case we make the careless mistake of answering in meters per Minute instead of Meters per second. We don't need to worry about Maggie and her iPod at all. In fact, if we can quickly calculate Glenn's rate is 200 meters per minute and then look at the answers, we know it will be less than 200 in meters per second. We also see the number '15' in answer B, which would be far too easy of an answer. Therefore, we could be confident with A without actually calculating $3000 \text{ meters} \div 15 \text{ minutes} \times 60 \text{ seconds} \approx 3.3$

20

Squares $ABCD$ and $WXYZ$ define two parallel planes such that $AW = BX = CY = DZ = 5$. Additionally, $AB = WX = 4$. Point Q lies between the two parallel planes such that it is equidistant from points $A, B, C,$ and D and also equidistant from points $W, X, Y,$ and Z . Lines $AQY, BQZ, CQW,$ and DQX are drawn to create two pyramids. What is the total volume of the two pyramids?

This problem is a grid in and also found in the non-calculator section. There are a few important strategies here. First, don't panic! Knowing that this problem is meant to be done without the aid of multiple choice or a calculator means that it cannot be the most difficult math problem on the test. Secondly, bite sized pieces for this problem. Take each piece of information step by step, and in the case of a geometry question(squares, pyramids and volume mentioned) with no figure given like this one, draw your own figures. Lastly, beware of quicksand. Recognize if you are stuck and go to at least one but no more than two different problems before you resume.

Can you solve it from the diagram below? One last point: The test makers will give you all the geometric formulas you will need, like how to find the volume of a pyramid. However, at Ivy Bridge we believe having it memorized and practiced before the test is truly the mastery of the concept and saves time from having to flip back to the beginning of a section and studying a diagram.



Each pyramid has a volume of 13.33, so the answer would be 26.66 or $\frac{80}{3}$.

The SAT essay

The Essay requires you to:

- Carefully read a text

- Understand how an author appeals to a reader's logic, emotions, or morals
- Write a logical analysis of an argument
- Explain how style choices can affect an author's persuasiveness

The Essay does NOT require you to:

- Give your opinion about a text
- Memorize examples from history or literature
- Have previous experience with the text

Let's take a look at some sample essays.

As you read the passage below, consider how Kennedy uses

- evidence, such as facts or examples, to support claims.
- reasoning to develop ideas and to connect claims and evidence.
- stylistic or persuasive elements, such as word choice or appeals to emotion, to add power to the ideas expressed.

John F. Kennedy. September 12, 1962. Rice Stadium, Houston, TX

- 1 We set sail on this new sea because there is new knowledge to be gained, and new rights to be won, and they must be won and used for the progress of all people. For space science, like nuclear science and all technology, has no conscience of its own. Whether it will become a force for good or ill depends on man, and only if the United States occupies a position of pre-eminence can we help decide whether this new ocean will be a sea of peace or a new terrifying theater of war. I do not say the we should or will go unprotected against the hostile misuse of space any more than we go unprotected against the hostile use of land or sea, but I do say that space can be explored and mastered without feeding the fires of war, without repeating the mistakes that man has made in extending his writ around this globe of ours.
- 2 There is no strife, no prejudice, no national conflict in outer space as yet. Its hazards are hostile to us all. Its conquest deserves the best of all mankind, and its opportunity for peaceful cooperation may never come again. But why, some say, the moon? Why choose this as our goal? And they may well ask why climb the highest mountain? Why, 35 years ago, fly the Atlantic? Why does Rice play Texas?
- 3 We choose to go to the moon. We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win, and the others, too.
- 4 It is for these reasons that I regard the decision last year to shift our efforts in space from low to high gear as among the most important decisions that will be made during my incumbency in the office of the Presidency...
- 5 To be sure, we are behind, and will be behind for some time in manned flight. But we do not intend to stay behind, and in this decade, we shall make up and move ahead.
- 6 The growth of our science and education will be enriched by new knowledge of our universe and environment, by new techniques of learning and mapping and observation, by new tools and computers for industry, medicine, the home as well as the school. Technical institutions, such as Rice, will reap the harvest of these gains.

- 7 And finally, the space effort itself, while still in its infancy, has already created a great number of new companies, and tens of thousands of new jobs. Space and related industries are generating new demands in investment and skilled personnel, and this city and this State, and this region, will share greatly in this growth. What was once the furthest outpost on the old frontier of the West will be the furthest outpost on the new frontier of science and space. Houston, your City of Houston, with its Manned Spacecraft Center, will become the heart of a large scientific and engineering community. During the next 5 years the National Aeronautics and Space Administration expects to double the number of scientists and engineers in this area, to increase its outlays for salaries and expenses to \$60 million a year; to invest some \$200 million in plant and laboratory facilities; and to direct or contract for new space efforts over \$1 billion from this Center in this City...
- 8 Many years ago the great British explorer George Mallory, who was to die on Mount Everest, was asked why did he want to climb it. He said, "Because it is there."
- 9 Well, space is there, and we're going to climb it, and the moon and the planets are there, and new hopes for knowledge and peace are there. And, therefore, as we set sail we ask God's blessing on the most hazardous and dangerous and greatest adventure on which man has ever embarked.
- 10 Thank you.

Write an essay in which you explain how President Kennedy builds an argument to expand and move forward with the United States' space program. In your essay, analyze how Kennedy uses one or more of the features listed above (or features of your own choice) to strengthen the logic and persuasiveness of his argument. Be sure that your analysis focuses on the most relevant aspects of the passage.

Your essay should not explain whether you agree with Kennedy's claims, but rather explain how the author builds his argument to persuade his audience.

Let's look at two responses to this prompt

In this essay President Kennedy is clearly trying to convince the American people to agree with his position on space travel—that it needs to happen within the decade. I think he makes a convincing argument and provides a lot of good evidence to make his argument solid.

He makes a lot of comparisons to other things that seemed really hard at the time but that we were able to do. I think that this kind of comparison really helps his argument because if we know that we have overcome really big challenges in the past then we can conquer space too.

Another thing Kennedy does to make his argument really effective is to talk about other benefits to space travel besides just travelling to space. Not everyone might be interested in travelling to space or visiting once we go there and set up camp. But if a person who was listening to Kennedy believed that space travel might benefit them in some way, then they would probably support it even if they didn't care about space.

I don't think that it's helpful to mention that we are behind. No one likes to be told that they are behind and possibly not able to do something. Sometimes that works, if you like to be the underdog, but mostly think it's discouraging. This isn't a big deal, though, because his argument is still really strong.

In conclusion, Kennedy makes a strong argument for us to go into space. He's very convincing and obviously it worked because we landed on the moon!

Another essay

In his eloquent speech at Rice Stadium, former-President Kennedy wields a vast array of oratory tools and constructs a case for investment in space exploration. Throughout his address, Kennedy makes use of evidence, reasoning, and stylistic elements that together form his argument for the decision that the United States should become a dominant force in the new field of space exploration, and attempt to reach the moon.

Kennedy begins his address with an analogy of space exploration as a "new sea", which he effectively continues by referring to the possible future of space as "whether this new ocean will be a sea of peace", and revisits in his final plea for divine blessing "as we set sail". The ocean is not the only natural analogy utilized by Kennedy in his speech, for he also makes use of references to mountaineering through the rhetorical question "why climb the highest mountain", as well as quoting George Mallory's stated reason for the expedition up Mount Everest: "Because it is there", and stating that "space is there, and we're going to climb it". Beyond natural analogies, Kennedy paints with colorful language, such as speaking of "the fires of war", "reap the harvest", the "infancy" of space exploration, and old Houston as "the furthest outpost on the old frontier". Kennedy also appeals to the locality in which he speaks by asking "Why does Rice play Texas?" and referencing "your City of Houston".

Kennedy's address makes use not only of creative language, but also of pieces of evidence. The primary evidence with which he appeals is a list of beneficial economic results of space exploration. He specifies that the area of Houston will see "double the number of scientists and engineers", bear an increase in "salaries and expenses to \$60 million a year", receive investments of "some \$200 million in plant and

laboratory facilities”, and be the source of funds “for new space efforts [of] over \$1 billion”. In addition to economic gains, Kennedy mentions a long list of educational boons such as “new knowledge of our universe and environment,” “new techniques of learning and mapping and observation”, and “new tools and computers for industry, medicine, the home as well as the school”.

Mixed among the evidential and rhetorical components of Kennedy’s address are threads of reasoning which display the thought process by which Kennedy supports his appeal for national movement towards the exploration of space. Kennedy provides many reasons for the decision, including the universal appeal of “new knowledge to be gained, and new rights to be won”. Some of the other explanations Kennedy provides for the decision include that “space science...has no conscience of its own”, that the “opportunity for peaceful cooperation may never come again”, and that space exploration is worth doing “because [it is] hard”, which – while apparently paradoxical – Kennedy explains as well-reasoned since “that goal will serve to organize and measure the best of our energies and skills”. He incorporates additional thoughtful elements as he discusses that while “we are behind,...we do not intend to stay behind, and in this decade we shall make up and move ahead.

Through these variable forms of evocative language, supportive evidence, and sound logic, former-President Kennedy forges an appeal to his audience that is well-rounded and subtly sculpted into an address that exemplifies the oratory skill for which he was well known.

What are the differences in the two responses?

Let’s look in terms of how the SAT would evaluate:

In terms of the rubric, which phrases from ETS can we apply to each essay from the Reading evaluation?

How about the Analysis evaluation?

The Writing?

While we may feel based on length the second one is better, that is not the reason. Further, we may also know it better written. But we need to be more specific because then we can not only understand how to construct our essay, but we see how the testmakers perceive essays. In other words, the Ivy Bridge approach to the essay is the same approach to every other aspect of the test: know the fundamentals, know how to answer the question, AND see the exam from the architect’s perspective.