Table of Contents

SAT TEST RESOURCES....................................................................................................................... 4

SAT OVERVIEW ..................................................................................................................................... 5

MATH........................................................................................................................................................... 9

MATHEMATICAL REASONING............................................................................................................... 10

Standard Multiple-Choice .................................................................................................................. 10
Hand-calculated responses (with Grid-ins) ......................................................................................... 11

QUESTION TYPES.................................................................................................................................... 13

ARITHMETIC ............................................................................................................................................ 13
DIVISIBILITY ........................................................................................................................................... 14
MULTIPLICATION ..................................................................................................................................... 16
ADDITION ................................................................................................................................................ 16
SUBTRACTION ....................................................................................................................................... 17
EVENS AND ODDS .................................................................................................................................. 18
PRIME NUMBERS ..................................................................................................................................... 20

PERCENTS ................................................................................................................................................ 22

SQUARE OF A NUMBER ........................................................................................................................... 25
EXONENTS ............................................................................................................................................... 27
ROOTS ....................................................................................................................................................... 29

AVERAGES ............................................................................................................................................... 30

CRITICAL READING .......................................................................................................................... 32

READING PASSAGES ........................................................................................................................... 32

FLYING OVER THE PASSAGE ................................................................................................................. 32
CREATING A TENTATIVE SUMMARY ...................................................................................................... 33
OPENINGS AND ENDINGS .................................................................................................................. 34
EXTRANEOUS INFORMATION .............................................................................................................. 34
USING KITCHEN LOGIC ....................................................................................................................... 35
GETTING INTO THE AUTHOR’S MIND ................................................................................................... 35

EMOTIONAL WORDS .......................................................................................................................... 36
FINDING THE KEY WORDS .................................................................................................................. 37
MAKING PROPER INFERENCES ......................................................................................................... 39

APPLYING IDEAS FOR GENERALIZATIONS ...................................................................................... 39

Copyright © StudyGuideZone.com. All rights reserved.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Context Clues</td>
<td>40</td>
</tr>
<tr>
<td>Breaking Down Passage Organization</td>
<td>41</td>
</tr>
<tr>
<td>First Word Analysis</td>
<td>42</td>
</tr>
<tr>
<td>Understanding the Intimidation</td>
<td>43</td>
</tr>
<tr>
<td>Finding Your Optimal Pace</td>
<td>44</td>
</tr>
<tr>
<td>Don’t Be a Perfectionist</td>
<td>46</td>
</tr>
<tr>
<td>Factually Correct, but Actually Wrong</td>
<td>46</td>
</tr>
<tr>
<td>Different Viewpoints</td>
<td>47</td>
</tr>
<tr>
<td>Sentence Completions</td>
<td>49</td>
</tr>
<tr>
<td>Try Every Choice</td>
<td>49</td>
</tr>
<tr>
<td>Read Carefully</td>
<td>49</td>
</tr>
<tr>
<td>Multiple Blanks</td>
<td>50</td>
</tr>
<tr>
<td>Focus on What You Know</td>
<td>50</td>
</tr>
<tr>
<td>Writing</td>
<td>51</td>
</tr>
<tr>
<td>Apostrophes</td>
<td>52</td>
</tr>
<tr>
<td>Possessive Nouns</td>
<td>52</td>
</tr>
<tr>
<td>Possessive Personal Pronouns vs. Contractions</td>
<td>53</td>
</tr>
<tr>
<td>Comma Errors</td>
<td>53</td>
</tr>
<tr>
<td>Problems With References</td>
<td>55</td>
</tr>
<tr>
<td>Problems With Agreement</td>
<td>57</td>
</tr>
<tr>
<td>Lack of Parallelism</td>
<td>60</td>
</tr>
<tr>
<td>Miscellaneous Problems</td>
<td>61</td>
</tr>
<tr>
<td>Writing an Essay</td>
<td>66</td>
</tr>
<tr>
<td>Planning Stage</td>
<td>66</td>
</tr>
<tr>
<td>Sticking to the Plan</td>
<td>66</td>
</tr>
<tr>
<td>Reviewing the Plan</td>
<td>67</td>
</tr>
<tr>
<td>Brainstorming Smart</td>
<td>67</td>
</tr>
<tr>
<td>Making the Cuts</td>
<td>69</td>
</tr>
<tr>
<td>Ending at the Start</td>
<td>70</td>
</tr>
<tr>
<td>Staying Consistent</td>
<td>71</td>
</tr>
<tr>
<td>Maintaining the Flow</td>
<td>72</td>
</tr>
<tr>
<td>Backing Up Your Points</td>
<td>72</td>
</tr>
<tr>
<td>Using Proper Grammar</td>
<td>73</td>
</tr>
</tbody>
</table>

Copyright © StudyGuideZone.com. All rights reserved.
SAT Test Resources

Free SAT Practice Tests
http://www.testprepreview.com/sat_practice.htm

Financial Aid Facts
http://www.finaidfacts.org

Scholarship Help
http://www.scholarshiphelp.org

Study Tips and Information
http://www.studyguidezone.com/resource_tips.htm
SAT Overview

As stated in its title, the Scholastic Aptitude Test (SAT) is indeed an aptitude test, and as such, it was required that media be chosen by which intellectual ability could be measured. In the case of the SAT, math and English were the selected media. While there is an ongoing, low-profile controversy about whether or not this test truly measures your abilities with regards to what you’ll need for college, that is not the purpose of this book. The purpose is, however, to make sure that you’re able to achieve the best possible state of preparation, allowing you to maximize your score potential - no matter if your actual aptitude has been measured.

As no test can measure all aspects of a person’s intelligence, the SAT measures those skills deemed most critical to a new college student. Then again, if any admission test, no matter how cleverly assembles, is inherently inadequate, why perform this type of testing at all? This is a question posed by every student who sees the SAT looming ahead of him/her. Nevertheless, the answer to this question is quite simple, and quite reasonable; to make college acceptance a more fair experience, by expanding the basis approval beyond a your grades.

The SAT is three hours in length, however, only two and a half hours of this time is actually counted towards your score. An experimental section will also be included, but will not have an impact on your final SAT score.

Your SAT score is one of the most critical elements to your qualification for college school, so it is naturally much too important...
for you to take this test unprepared. The higher your SAT score, the better your chances of admission will be for a respected, competitive college.

While different colleges assign a different weight or importance to your SAT scores, it is safe to assume that your SAT will be a major determining factor when it comes to the final admission decision made by each college to which you’ve applied.

Careful preparation, as described in this expert guide, along with hard work, will dramatically enhance your probability of success. In fact, it is wise to apply this philosophy not only to your college applications, but to other elements of your life as well, to raise you above the competition. Your SAT score is one of the areas in the college admission process over which you have a substantial amount of control; this opportunity should not be taken lightly. Hence, a rational, prepared approach to your SAT test as well as the rest of the admission process will contribute considerably to the likelihood of acceptance.

Keep in mind, that although it is possible to take a SAT test more than once, you should never take the test as an “experiment” just to see how well you do. It is of extreme importance that you always be prepared to do your best when taking the SAT.

It won’t take you long to discover that the SAT is unlike any test you’ve taken before, and it is probably unlike any test you will ever take again in your academic career. The typical high school or college test is a knowledge-based test. The SAT, however, is skills-based.
What does this mean to you? It means that you’ll have to prepare yourself in a completely different way! You won’t simply be reciting memorized facts as they were phrased in some textbook.

The SAT requires you to think in a thorough, quick and strategic manner…and still be accurate, logical and wise.

This test is designed to judge your verbal and mathematical ability in the ways that colleges feel is vital to the success of first year college students.

To some extent, you have already gradually obtained these abilities over the length of your academic career. However, what you probably have not yet become familiar with is the capability to use these abilities for the purpose of maximizing performance within the complex and profound environment of a standardized, skills-based examination.

There are different strategies, mindsets and perspectives that you will be required to apply throughout the SAT. You’ll need to be prepared to use your whole brain as far as thinking and assessment is concerned, and you’ll need to do this in a timely manner. This is not something you can learn from taking a course or reading a book, but it is something you can develop through practice and concentration.

This guide provides you with the professional instruction you require for understanding the traditional SAT test. Covered are all aspects of the test and preparation procedures that you will require throughout the process. Upon completion of this guide, you’ll have the confidence
and knowledge you need for maximizing your performance on your SAT.
**Math**

To identify the skills that need extra work, complete a practice SAT test that gives additional information, and have a look at the skill report that is produced by your sample SAT. Alternatively, complete a practice test and look for yourself at the areas where you excelled, and the areas where struggle was apparent.

Your six “critical” math skills will be in the areas where you have made the most wrong answers on your practice SAT. Those will be the math skills that will best help your score in the shortest period of time, if you manage to practice and better these skills. This is the area in which you can maximize your score increase potential.

To master your six critical math skills, there are certain steps you may take:

- Read over the skill lesson in this book, very carefully
- Find some practice SAT tests and work specifically on the questions that test your six critical math skills, practicing the new skills that you have learned in through your review.
- Use textbooks for increased detail, assistance, and question examples for the areas in which you are struggling the most.
- Practice, practice, practice!

The best way to get to learn your math skills is to rehearse them with as many new sample questions as you can get your hands on. The questions you do, the more you will become familiar and comfortable.
with that type of question, so that you can move on and concentrate on other areas for perfection.

Mathematical Reasoning

Within each section, the questions become increasingly difficult as you proceed. Therefore, the first few questions will always be much easier to solve than the last few questions will be.

To give you an idea as to the types of questions presented, please consider the following examples:

Standard Multiple-Choice

Standard multiple-choice questions are made up of either word problems, algebraic manipulations, or geometry. Here is a sample of a word problem:

*If one-sixth of all female students at Princeton like chips, and one-third of Princeton’s male students have nachos. Therefore, what fraction of the entire student population likes chips?*

A. 1/9  
B. 1/3  
C. 5/18  
D. 10/18  
E. It cannot be determined from the given information  
(Note: the answer would be E)

Copyright © StudyGuideZone.com. All rights reserved.
Hand-calculated responses (with Grid-ins)

These questions are similar to the Standard Multiple Choice Questions. The difference is that you acquire the answer and enter it directly on the grid. These problems are not difficult to solve, and as you become familiar with them, they do become easier. Basically all you need to know is how to enter your answers onto the grid.

So here are the rules. Each column represents a digit from your answer, and each column has a specific purpose (as outlined in the figure above).

Also, as both decimals and fractions are acceptable, you don’t have to worry about the format of your answer. For example, the scoring machine will accept both 0.5 and \( \frac{1}{2} \), so feel free to enter whichever format is most comfortable to you.
However, the grid machine doesn’t understand mixed numbers, so if your answer is 2 ½ then you’ll either have to mark it as 5/2 or 2.5.

As the grid does not accept negative answers, you know that none of the answers will be negatives.

So should your answers be:

1) 5/16 and  2) 5.6

You will properly mark them in in the following way:

<table>
<thead>
<tr>
<th>Answer Key</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>5</td>
<td>/</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>5</td>
<td>.</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Copyright © StudyGuideZone.com. All rights reserved.
Question Types

The test is very consistent with the type of mathematics questions that it uses, year after year. The following are the types of mathematical questions that you are likely to encounter:

- Arithmetic
- Divisibility
- Multiplication
- Addition
- Subtraction
- Evens and Odds
- Prime Numbers
- Percents
- Square of a Number
- Exponents
- Roots
- Averages

Arithmetic

Arithmetic skills refer to the questions that can be solved by using addition, subtraction, multiplication and/or division.

Since calculators are permitted in the test, the questions will obviously not be purely arithmetic - they’re not out to measure your ability with a calculator. So in this style of question, you’ll need to recall your order of operations. A good trick to recall your order of operations is...
“Please Excuse My Dear Aunt Sally”...before you say “huh?” recognize the first letters in this phrase:

- Work within Parenthesis
- Simplify Exponents
- Multiplication and Division
- Addition and Subtraction

The majority of arithmetic questions will require you to take multiple steps, and will likely test other skills as well, instead of being purely arithmetic. Often, the questions will be presented in the form of word problems, where you will need to decide when to add, subtract, multiply and divide.

For example:

*How many egg cartons are needed to hold 300 eggs, if each carton can hold one dozen (1 dozen = 12)*

A. 15  
B. 18  
C. 22  
D. 25  
E. 28  

Note: the answer is 25

**Divisibility**
The factors of integer X are the integers by which X can be divided without leaving a remainder. Thus, X is divisible by its factors.

For example:

The number 10 is divisible by both 5 and 2. 10 can be divided by both of these integers without leaving a remainder.

To review the rules of divisibility, have a look at the following:

1. Numbers divisible by 2 end in even numbers.

2. Numbers divisible by 3 can be determined by adding the sum of their digits and checking if that number is divisible by 3 (for example the number 123: 1+2+3=6, 6 is divisible by 3 with no remainder).

3. Numbers divisible by 4 can be identified if their last two digits will divide by 4 without a remainder (for example, the number 624: the last two digits are 24, which are divisible by 4 with no remainder).

4. Numbers divisible by 5 end only in 5 or 0.

5. Numbers divisible by 9 occur when the sum of its their digits are divisible by 9 (for example, the number 639: 6+3+9 = 18, which is divisible by 9).

6. A number is only divisible by 10 if it ends in 0

The following is an example of a divisibility question:

Which of the following integers divides into both 200 and 150?
Note: The correct answer is (D)

**Multiplication**

The following are a few simple rules to keep your multiplications on track:

Positive x Positive = Positive
Negative x Negative = Positive
Negative x Positive = Negative

**Addition**

Here are some rules to be certain that there are no slips while doing addition:

Positive + Positive = Positive
Negative + Negative = Negative
Negative + Positive = either positive or negative (you must use the absolute value of both: subtract the smaller from the larger and keep the sign of whichever absolute value was larger)
Subtraction

The definition of subtraction is: \( A - B = A + (-B) \)
A minus B is the same as A plus (the opposite of B)

\( X > 0 \), means that \( X \) is a positive number
\( X < 0 \), means that \( X \) is a negative number

\[-(A - B) = -A + B = B - A\]

\[(-X)^2 = X^2\]

If \( X < 0 \), \( X^2 > 0 \)

If, on the number line, one number occurs to the left of another number, the number on the left is the smallest number.

Therefore, when studying the line above, you will know that \( X < Y \) and \( Y < Z \).

For example:

Use the number line to make conclusions with regards to whether each number is positive or negative.
In this situation, you will have an easier time if you implement specific numbers to fit the problem. For example, let $X = -7$, $Y = -2$, and $Z = 3$. Be certain to utilize some negative numbers while substituting.

The following is an example of a subtraction question:

$Y - X$

Solution: Positive $Y$ is greater than $X$.

$-2 - (-7) = -2 + 7 = 5$

---

**Evens and Odds**

An even number is any word that is divisible by 2: numbers that are within the set ${...-6, -4, -2, 0, 2, 4, 6,...}$. Remember, though, that an even number is divisible by 2 and not have any remainder. Keep in mind also that 0 is an even number. Consecutive even numbers are all located 2 units apart. For example, if $x$ is an even number, then the next consecutive even number would be represented as $X + 2$.

Odd numbers, on the other hand, are numbers within the set ${...-5, -3, -1, 1, 3, 5,...}$.
The following charts demonstrate the properties of odd and even numbers. To check the property of a number, you can simply substitute the appropriate numbers.

**Properties of odd and even numbers with Addition**

<table>
<thead>
<tr>
<th>Property</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Even + Even = Even</td>
<td>2 + 8 = 10</td>
</tr>
<tr>
<td>Odd + Odd = Even</td>
<td>3 + 9 = 12</td>
</tr>
<tr>
<td>Odd + Even = Odd</td>
<td>3 + 8 = 11</td>
</tr>
</tbody>
</table>

**Properties of odd and even numbers with Addition**

<table>
<thead>
<tr>
<th>Property</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Even x Even = Even</td>
<td>4 x 6 = 24</td>
</tr>
<tr>
<td>Even x Odd = Even</td>
<td>4 x 5 = 20</td>
</tr>
<tr>
<td>Odd x Odd = Odd</td>
<td>3 x 9 = 27</td>
</tr>
</tbody>
</table>

Consider the following example:

*If R is an odd integer, what are the next two consecutive odd integers?*

A) T and V  
B) R and R+1  
C) R+1 and R+2  
D) R+2 and R+4  
E) R+1 and R+3  
Note: the correct answer is (D)
Here’s another example:

*If x is an odd integer and y is an even integer, tell whether each expression is odd or even.*

A. $x^2$
B. $xy$
C. $y^2$
D. $x + y$
E. $2x + y$

Note (A) is odd. (B) is even. (C) is even. (D) is odd, and (E) is even.

**Prime Numbers**

A prime number is defined as an integer that is greater than 1, and has only two positive factors, 1 and itself.

For example, 7 is a prime number, as its only factors are 1 and 7. However, 6 is not a prime number, because its factors are 1, 2, 3, 6

The first ten prime numbers are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29

Note, though that 1 is not a prime number, and both the smallest and the only even prime number is 2.

Prime factorization is the process by which you express a number as a result of only prime numbers.
For example:

To create the prime factorization of 24, you’d represent it as:
2 \times 2 \times 2 \times 3 \text{ or } 2^3 \times 3

To create the prime factorization of 15, you’d represent it as:
5 \times 3

An example of a factor question is:

If \( xy = 13 \) and both \( x \) and \( y \) are positive integers, then what is the sum of \( x + y \)?

A. 13  
B. 14  
C. 16  
D. 20  
E. 26

Note: the answer is B

Here is another example:

What is the sum of the first 5 prime numbers?

A. 18  
B. 28  
C. 30  
D. 34
Note: The first five prime numbers are 2, 3, 5, 7, 11 and their sum is 28. The answer is B.

**Percents**

The word percent means “hundredths” or a number which is divided by 100. Converting a number into a percentage involves multiplying the number by 100.

A percent can be determined by performing the division of the part by the total and multiplying it by 100:

\[
\text{Percent} = \frac{\text{Part}}{\text{Total}} \times 100
\]

For example, if Wendy missed 12 out of 80 examination questions, what is the percent of questions she missed?

\[
\text{Percent} = \frac{\text{missed questions}}{\text{Total}} \times 100 = \frac{12}{80} \times 100 = 0.15 \times 100 = 15\%
\]

The phrase “X is N percent of Y” can also be written mathematically as

\[
X = \frac{N}{100} \times Y
\]
The word “is” means equal (=), while the word “of” means “multiply” However, before multiplying, you must change a percent into a decimal or fractional format.

For example:

5 is 20% of 25, means 5 = 0.20 x 25

To change the fraction into the percent, you must first change the fraction into a decimal, and then multiply by 100 (or move the decimal point by 2 places to the right)

For example:

*Change the fraction 1/5 into a percent.*

First, change the fraction 1/5 into the decimal 0.2, and multiply by 100 (move the decimal 2 places to the right). Therefore:

1/5 x 100 = 20%

The following table provides the common percentages that you will use on a regular basis, and may wish to memorize.

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Decimal</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/100</td>
<td>0.01</td>
<td>1%</td>
</tr>
<tr>
<td>1/10</td>
<td>0.1</td>
<td>10%</td>
</tr>
<tr>
<td>1/7</td>
<td>0.1428571</td>
<td>14.3%</td>
</tr>
<tr>
<td>Fraction</td>
<td>Decimal</td>
<td>Percentage</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>1/6</td>
<td>0.16666...</td>
<td>16.6% or 16.7%</td>
</tr>
<tr>
<td>1/5</td>
<td>0.2</td>
<td>20%</td>
</tr>
<tr>
<td>1/4</td>
<td>0.25</td>
<td>25%</td>
</tr>
<tr>
<td>1/3</td>
<td>0.33</td>
<td>33.3%</td>
</tr>
<tr>
<td>1/2</td>
<td>0.5</td>
<td>50%</td>
</tr>
<tr>
<td>3/5</td>
<td>0.6</td>
<td>60%</td>
</tr>
<tr>
<td>1</td>
<td>1.0</td>
<td>100%</td>
</tr>
<tr>
<td>3/2</td>
<td>1.5</td>
<td>150%</td>
</tr>
</tbody>
</table>

Please note that numbers over 1 achieve percentages that are greater than 100%.

Consider the following example:

*What is 20% of 50?*

A. 5  
B. 8  
C. 10  
D. 12  
E. 15

Note: the answer is C

To solve this question, you must rewrite it as an algebraic question. Therefore, let x represent the unknown number.

\[ x = 0.20 \times 50 \]
Keep in mind that to change the percent to a decimal, and that the word “of” means that you should multiply.

\[ X = 10 \]

Here is another example:

5 is what percent of 2?

A. 2.5%
B. 25%
C. 100%
D. 250%
E. 500%

Rewrite this as an algebraic equation. \( 5 = n \times 2 \)
Solve for \( n \) and remember to change the answer to a percent.
\[ n = \frac{5}{2} = 2.5 = 250\% \]

Therefore, the answer is (D)

**Square of a Number**

Squaring a number means to multiply that number by itself.

The notation for squaring a number \((x)\) is as follows: \(x^2\)
When squaring an integer, the result obtained is called a perfect square.

When preparing for the test, make sure that you are fully capable of understanding and reproducing the following table, as well as recognizing the numbers that are perfect squares and perfect cubes.

<table>
<thead>
<tr>
<th>n</th>
<th>( n^2 )</th>
<th>( n^3(n &gt; 0) )</th>
<th>( n^3(n &lt; 0) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-1</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>8</td>
<td>-8</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>27</td>
<td>-27</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>64</td>
<td>-64</td>
</tr>
<tr>
<td>5</td>
<td>25</td>
<td>125</td>
<td>-125</td>
</tr>
<tr>
<td>6</td>
<td>36</td>
<td>216</td>
<td>-216</td>
</tr>
<tr>
<td>7</td>
<td>49</td>
<td>You will not need to know any higher</td>
<td>You will not need to know any higher</td>
</tr>
<tr>
<td>8</td>
<td>64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>121</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>144</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Squared numbers and special properties

- \( x^2 > 0 \) always, except for \( x = 0 \)
- \( x^2 > x \) for \( x > 1 \)
• $x^2 < x$ for $0 < x < 1$
  *important
• $x^2 = x$ for $x = 1$ or $0$
• The square root of $x^2$ equals the absolute value of $x$.
  \[ \sqrt{x^2} = |x| \]
• If $x^2 = y^2$, then either $x = y$, or $y = -x$, or $x = -y$.

The following is an example:

*Of the following numbers, which is a both a perfect square and a perfect cube?*

A. 4  
B. 8  
C. 9  
D. 16  
E. 64

Note: the answer is (E)

**Exponents**

The mathematical notations for numbers which are the result of a number that is multiplied by itself a number of times is called exponents.

Examples:
$x^3 = x \times x \times x$

$x^5 = x \times x \times x \times x \times x$

The expression of $x^n$ is also called the $n^{th}$ power of $x$. The $x$ is the base, while the $n$ is the exponent. Math questions will usually only utilize integral exponents. $x^2$ is read as $x$-squared, and $x^3$ is read as $x$-cubed. All others are read as a power of $x$. $x^4$ is read as the 4th power of $x$.

When it comes to the power of 10, there is a simple, quick rule that simplifies the powers of 10, by writing it as 1, followed by the number of zeros as specified by the power.

Examples: $10^5 = 1$ followed by 5 zeros. $100000 = 100,000$.

An example you may find is:

*Represent 32,456 to the power of 10.*

The solution would be as follows:

$32,456 = 3 \times 10^4 + 2 \times 10^3 + 4 \times 10^2 + 5 \times 10^1 + 6 \times 10^0$

Consider the following example:

Solve for $x$: $(x - 3)^2 = 49$. 

*Copyright © StudyGuideZone.com. All rights reserved.*
You could use algebra and take the square root of both sides or since 49 is a perfect square you could guess integers for \( x \). Just remember \( x - 3 \) must be positive or negative.

If you try guessing, the integers 10 and -4 work. To get an algebra solution, do the following:

\[
(x - 3)^2 = 49
\]
\[
x - 3 = 7 \text{ or } x - 3 = -7
\]
\[
x = 10 \text{ or } x = -4
\]

It is your goal to get problems correct quickly. Sometimes guessing (Guessing in this case means substituting in numbers to see which satisfy the equation.) is faster than solving an equation, if you train yourself to use the technique. Of course, if you cannot "see" the answers fast enough, use other approaches to answer the problem.

**Roots**

The test will require you to manipulate both square roots and cube roots. Some of the questions will measure whether or not you understand these expressions.

You should remember that none of the following should ever occur:

1. No perfect square can be left underneath a radical (square root) sign.
2. No radical can be within the denominator.
3. No fractions may occur within the radical sign.
Averages

There are three basic components that comprise an average problem:

1. Total
2. Average (also known as a mean)
3. # of numbers

The average is the total of elements that are within the set.

To discover the average, simply divide the total by the # of numbers.

For example:

Jenna’s last four test scores were 35, 56, 75, and 28. What is the average of Jenna’s test scores?

A. 43
B. 48.5
C. 52.5
D. 54
E. 47

Note: the answer is (B).

35 + 56 + 75 + 28 = 194
194 / 4 = 48.5

Five things to remember when solving averages:

Copyright © StudyGuideZone.com. All rights reserved.
1. If a number that is the same as the average is added, the new average will not change.

2. If a number is added and it is less than the average, the average will decrease.

3. If a number is added and it is greater than the average, the average will increase.

4. If a pair of numbers are added, and they are “balanced” on both sides of the average, the arithmetic mean is the middle value.

5. To discover the average between two evenly spaced numbers, add the first and the last terms and divide them by 2.
Critical Reading

Reading Passages

The critical reading section measures a test taker’s ability to understand, analyze and evaluate written passages. The passages will contain material that will be from a variety of sources and on a number of different topics.

Each of the passages in the section will be followed by a series of questions covering the content of the passage or statement, in which you will have to answer questions, which will demonstrate how well you understand the passages and are able to draw conclusions about the material.

Flying Over the Passage

A topic that is hotly debated among test taking circles is whether or not you should read the reading passages before you read the question. One theory is that you can save time if you read the questions first and then go back and read over the passage. Another theory is that you should read the passage first and then go into the questions. Both theories have their own individual merit and due to the differences in ability and preferences among test takers, one method may work better than another for you.

Our recommended theory is the flyover. You want to spend some time on the passage, at a bare minimum so that you have a general idea about what the questions are going to ask and get your mind into the
proper mindset for the series of questions. However, you don’t want to waste too much time on reading the passage, because much of the detail will be forgotten by the time you get to the questions anyway. Therefore, you should fly over the passage. You should read it very quickly for a high-level overview (hence the flyover) understanding of what is contained in the passage.

In part, this is a compromise between the theories that gains most of the benefits of each. You won’t waste time on the details and yet will have a general idea of what the passage is about and what to expect.

**Creating a Tentative Summary**

After you’ve finished your flyover of the passage, take a few seconds and compose a tentative mental summary of what you’ve just read. Try to sort out the details you picked up on and arrange them into a loose organizational pattern that describes the passage. Remember that your goal in the flyover is not to check it off of a test-taking list of things to do. You want there to be some purpose behind the flyover and having the definite goal of being able to put together a brief mental summary will allow you to maintain some focus and gain benefit from the flyover – as opposed to just skimming it for the sake of skimming it without actually picking up on anything.

As you begin going through the questions and answer choices, if you get good enough at putting together your mental summaries from practice, you should be able to eliminate a number of answer choices that are immediately contrary to your summary. Note, however that if you find yourself without any good answer choices remaining (because
you’ve eliminated them all) you obviously had to have eliminated the right answer choice. Don’t hesitate to reopen an answer choice that you’ve already “eliminated” from consideration and reconsider it as a possibility. If you think an answer choice contradicts your initial summary, you’re probably right, but are not infallible.

**Openings and Endings**

A main focus of this flyover will be the opening and ending sentences in each paragraph. These are likely to contain the main ideas of the paragraphs and should be mentally tagged for future reference. Try to remember a vague idea of what the different paragraphs are about, because this will save you time when answering questions later.

For the most part, make sure you never try to just answer the questions from this first flyover. Always try to go back and confirm the answer, as your memory will play tricks on you and the writers of the test questions may deliberately have planted a trap for you – remember that they don’t exactly have your best interests at heart.

**Extraneous Information**

Some answer choices will seem to fit in and answer the question being asked. They might even be factually correct. Everything seems to check out, so what could possibly be wrong?

Does the answer choice actually match the passage, or is it based on extraneous information not even contained in the passage. Just because an answer choice seems right, don’t assume that you
overlooked information while reading the passage. Always try to go back and find the support for the answer choice in the passage. Your mind can easily play tricks on you and make you think that you read something or that you overlooked a phrase.

Unless you are behind on time, always go back to the passage and make sure that the answer choice “checks out.”

Using Kitchen Logic

When a question asks the test taker to identify a main idea, you should first focus on the opening and ending sentences of the passage and each individual paragraph. If you can’t find the main idea from these key sentences, then ask yourself how you would describe the passage to someone who had never read it. Which words and phrases would you use to explain the principle ideas of the passage?

This is called “Kitchen Logic” - when you explain something the way you would if you were talking to your friends and family, while sitting at your kitchen table. So, when faced with identifying the main idea of a difficult passage, make it easier on yourself by backing away from the passage and thinking about it in terms of using easy “kitchen logic”.

Getting into the Author’s Mind

Copyright © StudyGuideZone.com. All rights reserved.
A number of questions become much easier when you place yourself into the mind of the author of the passage. Ask yourself a few different questions:

“Why did the author write this passage?”

“What was the author trying to say?”

“What angle is the author taking?”

“What is the single most important point the author is trying to make?”

Put yourself in the shoes of the author and imagine that you wrote the passage and try to identify what you were trying to describe and how you were trying to describe it. If you take on the opinions and ideas expressed by the author as your own, then it becomes easier to answer questions that would be easy for the author to answer.

**Emotional Words**

Each question will be about a different angle of the passage. For questions asking about the author’s emotions, find words in the passage that are adjectives describing emotions.

So, if a question asks what sort of attitude an author had towards the passage or subject, then look throughout the passage for attitude words that might convey a positive or negative attitude. Are words such as brilliant, excited, delightful used, or are words such as depressive, gloomy, disappointing used?
A lot of questions could be answered correctly simply by going through and circling all the adjectives in a passage. Without looking at anything else except for the adjectives in a passage, most questions about attitude or emotion could be answered correctly.

Another way of handling these situations is to arrange all of the answer choices in a list going from most negative to most positive.

Example:
Question: The author’s attitude on this topic is best described as:
   A. indignation
   B. eagerness
   C. impartiality
   D. fear
   E. consent

Now arrange these in order from negative to positive:
( - ) indignation, fear, impartiality, consent, eagerness (+)

This will help sort out the different choices and keep you from overlooking an answer choice and making an easy mistake.

Finding the Key Words

The strategy of finding certain “give-away” words does not only apply to adjectives in questions about emotions or attitude. Many questions about specific details will have key words that hold the “key” to finding the right part of the passage to look in for the answer.

Copyright © StudyGuideZone.com. All rights reserved.
Rather than answering based on your memory of the passage, you always want to have support for your answer choice rooted in a specific part of the passage. To gain that support, it follows that you have to identify which part of the passage to look in. While reading back over the entire passage may be the most foolproof method of finding that important part of the passage, it definitely is not the most time economical method of finding that part of the passage.

A better route is to find key words in the question or answer choices that are likely to stand out in the passage and will enable you to quickly narrow your search down. These key words will be nouns or verbs in the question or answer choices. Once you’ve identified possible key words, then you should scan through the passage quickly looking for either those key words to be repeated in the passage, or their synonyms to appear in the passage. Once you find a particular part of the passage that either has the exact key word repeated or a synonym of the key word, you have probably identified the particular part of the passage that will contain the support or justification that you need to correctly answer the question and will allow you to be confident in your answer choice selection.

One warning that should be made here is that often question writers may use the exact same word or wording in their answer choices that are used in the passage, but have done so in such a way as to mislead you. So, simply because a particular word or phrase appears in an answer choice and also appears exactly the same in a passage does not make that answer choice correct. Be sure that you reread the answer choice and consider the context that it is in, to ensure that you are not misled by a cheap trick.
In conclusion, always try to connect the question to the right words in the passage that will allow you to save time in finding the right part of the passage to look in for the answer and will give you the key to the correct answer choice.

**Making Proper Inferences**

Questions that ask you to make an inference from the passage will require you to use your own personal judgment. Anything directly stated by the author is not an inference. You will need to understand the main idea of the passage in order to make a proper inference about the author’s intent and mindset.

The obvious will not be enough to answer an inference question. You must logically deduce what follows from what the author has stated in the passage. You are looking for what can be inferred by the passage, not what is directly stated in the passage.

**Applying Ideas for Generalizations**

Generalization questions are similar to inference questions in that you have to go beyond what is directly stated in the passage by the author. It helps to put yourself again in the author’s shoes. If you were the author and believed in what you had just written, how would you feel about another similar situation? What would either strengthen or weaken your argument? How would you apply the information you have just expressed to a completely different situation?
Using Context Clues

Context clues are a valuable aide in helping you understand difficult phrases or words in the passage. A number of questions will ask you about the meaning of words as they are used in a given passage.

If you already know the definition of the word, or have some familiarity with it, a common mistake is to go with your first impulse and choose the answer that you immediately recognize. However, the reason the test writers may have chosen that particular vocabulary word is because it is used in an unusual context. Therefore, return to the passage and find where the word is used and make sure that you understand how it is being used in the passage.

Once you’ve made your choice of a good definition go back again to the passage and reread that particular section, but mentally replace the answer choice you’ve chosen for the word being asked about.

Example:
A passage states: “He was notorious for making decisions on the spur of the moment...”

Question: Which of the following words, if substituted for the word “notorious” would introduce the LEAST change in the meaning of the sentence?

A. evil
B. disturbed
C. famous
D. despised
E. powerful

If you knew that the most common definition for “notorious” meant being known in an unfavorable sense, then you might be tempted to choose choice A, “evil.”

But once you review back over the passage, choice C, “famous” fits in better into the context of the sentence of passage. Read the sentence again and substitute your chosen answer choice for the word it replaces. This gives you:

““He was famous for making decisions on the spur of the moment...,”” which makes sense and is correct.

**Breaking Down Passage Organization**

In trying to understand the author’s perspective, you will sometimes be asked about how the passage is organized. Many times, the simplest way to find the answer is to note how the opening sentence in a passage or paragraph relates to the rest of the passage. How does the author’s main idea get developed and broken down into supporting ideas and statements?

As you go through the answer choices for these organization problems, quiz yourself on each answer choice.

Example:
Question: Which of the following best describes the organization of the author’s discussion of this topic?

A. He provides an example – Ask yourself, is there an example in the question? Don’t work exclusively from your memory. Make sure you can go back and actually find the example in the passage.

B. He makes a comparison – Ask yourself, is there a comparison in the question? Again, go back to the passage and actually find the comparison being made and verify that it exists.

C. He makes an acknowledgement – Ask yourself, where is the acknowledgement made and to whom?

D. He discusses a theory – Ask yourself, which theory is being discussed?

E. He praises the research – Ask yourself, where is the praise mentioned?

After each of these initial questions, remember that it is not enough for them simply to be true, they have to answer the question. Simply because the author provided an example, doesn’t make choice A correct. The example provided may have been to support a comparison that he was making and the comparison may be the main method of organization, which in this case would make answer choice B correct. So always read all the answer choices and only choose the one that is the best, not just the first one you read that is factually correct.

First Word Analysis
When asked for main ideas that best summarize the passage, an easy strategy is to look at the first words in each answer choice and without looking at the rest of the answer choice, see if you could make a decision based on those first words alone.

Example:
Question: Which of the following best explains the author’s primary purpose?
   A. dispute...
   B. describe...
   C. condemn...
   D. convince...
   E. criticize...

If you know that the passage is fairly neutral about the subject, then even if you know nothing else, you can probably eliminate the stronger verbs used in answer choices A, C, D and E, leaving you with “describe” or answer choice B as being correct.

Understanding the Intimidation

The test writers will generally choose passages that will be completely foreign to most test takers. You can’t expect the passages to be on a topic with which you have any familiarity. If you do happen to come across a passage that you are familiar with, consider yourself lucky, but don’t plan on that happening.

The passages will also frequently be drawn from longer passages in books, articles, journals, etc. Therefore, the passage that you will face
on the test may almost seem out of context and as though it begins in
the middle of a thought process. You won’t have a nice title overhead
explaining the general topic being covered but will immediately be
thrown into the middle of a strange format that you don’t recognize.

Also, while the topics chosen may have originally been interesting
reading in their original state, after a particular section is pulled and
used for the test passage, it will likely be dry and boring.

Getting hit by strange reading topics that you don’t recognize, of which
you may only have a small part of the original selection, and that are
dry and boring can be a bit intimidating if you’re not adequately
prepared. Just remember that the passages themselves will contain
all the information necessary to answer the questions and you don’t
need any prior knowledge of the topic in order to succeed and do well
on the test.

**Finding your Optimal Pace**

Everyone reads at a different rate. It will take practice to determine
what is the optimal rate at which you can read fast and yet absorb and
comprehend the information. This is true for both the flyover that you
should initially conduct and then the subsequent reading you will have
to do as you go through and begin answering the questions. However,
on the flyover, you are looking for only a surface level knowledge and
are not trying to comprehend the minutia of details that will be
contained in the passages.
You can practice with any form of reading material. Read an article at your normal pace and then after you’re finished, ask yourself some questions about what you just read and see how well you can comprehend. Experiment with reading articles faster and slower and always gauge how well you comprehended what you read at the end. Train your brain to remember the details and absorb the facts.

With practice, you will find the pace that you should maintain on the test while going back through passages. It should be a comfortable rate. This is not a speed reading exercise. If you have a good pace, and don’t spend too much time on any question, you should have a sufficient amount of time to read the different sections of the passages at a comfortable rate. The two extremes you want to avoid are the dumbfounded mode, in which you are lip reading every word individually and mouthing each word as though in a stupor, and the overwhelmed mode, where you are panicked and are buzzing back and forth through the passage in a frenzy and not comprehending anything.

You must find your own pace that is relaxed and focused, allowing you to have time for every question and give you optimal comprehension. Note that you are looking for optimal comprehension, not maximum comprehension. If you spent hours on each word and memorized the passage, you would have maximum comprehension. That isn’t the goal though, you want to optimize how much you comprehend with how much time you spend reading. Practice will allow you to determine that optimal rate.
Don’t be a Perfectionist

If you’re a perfectionist, this may be one of the hardest strategies, and yet one of the most important. The test you are taking is timed, and you cannot afford to spend too much time on any one question.

If you are working on a problem and you’ve got your answer split between two possible answer choices, and you’re going back through the passage and reading it over and over again in order to decide between the two, you can be in one of the most frustrating situations possible. You feel that if you just spent one more minute on the problem, that you would be able to figure the right answer out and decide between the two. Watch out! You can easily get so absorbed in that problem that you loose track of time, get off track and end up spending the rest of the test playing catch up because of all the wasted time, which may leave you rattled and cause you to miss even more questions that you would have otherwise.

Therefore, unless you will only be satisfied with a perfect score and your abilities are in the top .1% strata of test takers, you should not go into the test with the mindset that you’ve got to get every question right. It is far better to accept that you will have to guess on some questions and possibly get them wrong and still have time for every question, than to work on every problem until you’re absolutely confident in your answer and then run out of time on the last few problems.

Factually Correct, but Actually Wrong
A favorite ploy of question writers is to write answer choices that are factually correct on their own, but fail to answer the question, and so are actually wrong.

When you are going through the answer choices and one jumps out for being factually correct, watch out. Before you mark it as your answer choice, first make sure that you go back to the question and confirm that the answer choice answers the question being asked.

**Different Viewpoints**

Some passages will express the author’s viewpoint on a topic, along with the viewpoint of other experts or other individuals. This can lead to trouble in answering questions though. If asked for the viewpoint of the author, you might go back to the passage, find where a certain viewpoint is expressed, answer the question based on what you read and move on.

For most passages, that would be fine, but when other viewpoints besides the author’s are expressed, you have to discern who is expressing their opinion in the passage. Make sure that if multiple individuals are giving their viewpoint on a topic, that you sort them out for any questions and associate the right viewpoint with the right individual.
**Sentence Completions**

The sentence completion section will offer you a sentence that has a blank that must be filled in. The word(s) that best complete(s) the sentence will be correct. The sentences may either have one or two missing words and blanks.

**Try Every Choice**

Just because you think that one of the answer choices sounds best, go ahead and try all of them by plugging each of them into the blank(s) and seeing which one sounds the best. The test writers will be sure to put in additional choices that may sound “close enough,” but you want to make sure that you pick the one that is the absolute best possible answer choice.

**Read Carefully**

Don’t make the mistake of reading through the sentences carelessly. A prepositional phrase or a tiny word can alter the entire meaning of the sentence.

This is particularly true for transition/hedge words like if, then, therefore, also, sometimes, never, not, and always. These words are particularly critical to watch for, as a word such as “not” can make an answer choice directly opposite of the correct answer choice sound correct.
Multiple Blanks

Instead of being intimidated by the sentences that have multiple blanks, you should be excited, because they give you more data points to use to determine which answer is correct. The additional information required to answer the question actually helps, as if you aren’t sure about one of the words in an answer choice word pair, you can still check the other word and see if it is right or wrong.

Focus on What You Know

Many test takers are panicked when they realize they don’t know what a word means. The key is to use what you do know. Does the unknown word have any prefixes or suffixes that you recognize? Do you know of any familiar words that have the same root word? You’ll be surprised what you can determine about a word when you dissect it appropriately.

If you aren’t able to dissect the word, there are still lots of other words in the other answer choices that you do know and can work with. Since there are only five choices to choose from, if you are able to eliminate the other four, then even if you don’t know all the words in the fifth answer choice – it must be right. Also, if you are confident that another answer choice is correct, you can immediately move on, without worrying about a word that you don’t know.
Writing

The Writing test measures a test taker’s ability to communicate effectively in writing, while properly using language and grammar. It is divided into two sections, an essay and a multiple-choice section.

The multiple choice problems will not require knowledge of formal grammar terms, but will require a test taker to identify errors in phrases and sentences and choose the best way to rewrite the phrase or sentence without the error. The questions will cover a wide range of possible subjects, and will include material of particular relevance to groups other than white males.

The essay topic provided will not require specific knowledge of the material, but only the ability of a test taker to utilize their personal experiences and observations to provide examples and generalizations about the topic.

There are two main categories of questions that you will be faced with on the multiple-choice section.

1. Usage
   These questions will focus on identifying errors in word choice, punctuation, capitalization, coordination, subordination, parallelism, correlation, negation, and comparison.

2. Sentence Correction
These questions will focus on choosing the best way to state a particular phrase or sentence, making decisions based on structure, word choice, grammar, or mechanics.

**Apostrophes**

An apostrophe is used to form a possessive or a contraction. Check for the following common apostrophe errors. The bracketed parenthetical demonstrates the correct use.

**Possessive Nouns**

1. **Singular possessive nouns.** Use 's to show that a singular noun is possessive [the defendant's motion]. You can apply this rule even when the singular noun already ends in "s" (Charles's costume) though many writers add only the apostrophe [Charles' shoes].

2. **Plural possessive nouns not ending in "s."** Use 's to show that a plural noun not ending in "s" is possessive [the children's toy].

3. **Plural possessive nouns ending in "s."** Add only an apostrophe to make plural nouns possessive [the boys' game].

4. **Nouns that are not possessive.** Do not add an apostrophe to a noun that is not possessive [the teachers (not teacher's or teachers') have claimed; the Joneses (not Jones' or Jones's) did not attend].
Possessive Personal Pronouns vs. Contractions

Apostrophe errors with possessive personal pronouns are common because possessive personal pronouns indicate possession and we are used to using apostrophes to indicate possession. Also possessive personal pronouns are easily confused with contractions. Here are the basic rules:

5. Possessive personal pronouns. Do not add an apostrophe to a possessive pronoun [the problem is hers (not her's); the corporation must disclose its (not it's) assets.]

6. Contractions. Do use an apostrophe in a contraction (it's time to go; you're the one).

* Watch especially for errors in using "it's" or "its." Remember that "it's" means "it is" and "its" indicates ownership. Confusing these two words is the most common apostrophe error.

Comma Errors

Commas are also major troublemakers. Watch for these situations:

1. Use a comma to separate two independent clauses joined with a coordinating conjunction (and, or, but, nor, so, for). [The child agreed, but the parent objected].
2. Use a semicolon or a period, not a comma, to separate two independent clauses not joined by a coordinating conjunction [The child agreed; however, the parent objected.]. The following transitional words and phrases are conjunctive adverbs, not conjunctions:

- accordingly
- however
- also
- moreover
- consequently
- on the other hand
- for example
- otherwise
- for instance
- similarly
- furthermore
- therefore
- hence
- thus

Therefore, do not use a comma to separate two independent clauses on either side of one of these words.

Incorrect: The city must increase its tax base, however, the citizens must be able to accept the additional tax burden.

Correct: The city must increase its tax base; however, the citizens must be able to accept the additional tax burden.

3. Conjunctive adverbs signal the relationship between the point(s) made in the material before their sentence and the material of that sentence. The words and phrases in the list above are examples. When you begin an independent clause with a conjunctive adverb or when you use it in the middle of a sentence, set it off with a comma.
Moreover, the defendant has not yet established a proper foundation for this testimony.

The student, moreover, has not yet turned in an acceptable project to meet his assignment’s requirements.

4. Use commas to set off the year if you also identify the day [The birth of Norma Kelly on June 2, 1974, brought the . . . .], but omit the commas otherwise [The birth of Norma Kelly in June 1974 brought . . . .].

5. Use commas to separate three or more simple items in a list. If the descriptions of the items are long or complex, use semicolons to separate them.

6. Use a comma to separate two independent clauses connected by a coordinating conjunction unless the two independent clauses are short and simple:

Correct: The sunlight helped the flowers to grow, but they require frequent watering in order to stay alive.
Correct: Yours is timely and mine is late.

Problems With References

A referent is a word or phrase that refers to something else (an antecedent). Problems with referents can cause confusion and, sometimes, unintended humor. Problems with references occur
primarily (1) when sentences have more than one possible antecedent (often caused by placing the referent too far from the intended antecedent); or (2) when the antecedent is only implied. Here are examples problems with references.

More than one possible antecedent

The doctors told their patients that they had serious problems. [Who had problems?]
To prevent children from sucking their thumbs, some parents soak them in tabasco sauce. [Do the parents soak the children or the thumbs?]

The corporate officers had failed to disclose the serious conflicts of interest caused by their ownership of several of T&J's suppliers. The possibility of a bankruptcy was a disaster for them. [Was the possibility a disaster for the officers, the conflicts, or the suppliers?]

Referring to an antecedent that is only implied:

The corporate officers had failed to disclose the serious conflict of interest raised by the possible bankruptcy of T&J's primary supplier. This was a disaster for the officers.

[What was a disaster -- the failure to disclose, the conflict, or the possible bankruptcy?]
Notice that the confusing reference in this last example is caused by using "this" alone. Using the pronoun "this" or "that" without a noun following immediately is usually inadvisable. Here, for instance, the confusion could be resolved easily by adding the clarifying noun after "this":

The corporate officers had failed to disclose the serious conflict of interest raised by the possible bankruptcy of T&J's primary supplier. This failure was a disaster for the officers.

The three primary strategies for solving reference problems are: (1) repeating the antecedent (as in the prior example); (2) re-arranging the material to place the referent close to the antecedent; or (3) re-arranging the material to eliminate the need for the referent. For instance, here is another possible solution to the reference problem above:

The possibility of a bankruptcy was a disaster for the corporate officers. They had failed to disclose the serious conflicts of interest caused by their ownership of several of T&J's suppliers.

**Problems With Agreement**

Here are the most common errors in agreement:

1. The following indefinite pronouns are singular and take a singular verb:
   
   anyone: Anyone is welcome.
   
   each: Each is an expert.
either Either supports the argument.
everyone Everyone has problems.
neither Neither sings in tune.

The singular verb is correct even when the indefinite pronoun is followed by a prepositional phrase with a plural noun:

Each of these peaceful alternatives was [not "were"] ignored.

Either of the twins is [not "are"] available.

However, the following indefinite pronouns are either singular or plural, depending on the nouns or pronouns they refer to:

all
any
none
some

For example:
All [singers] are permitted . . . .
All of the money is counted . . . .

None of them are satisfied . . . .
None of the royalty was present . . . .

2. "The court" is a singular term, taking a singular pronoun:
The court overruled the traditional rule originally announced in December. It [not "They"] held that . . . .

3. This same kind of error can slip in when referring to any institution or business:

He said that he is very grateful to St. Catherine's Hospital. They treated him with respect.

The problem sometimes occurs because the writer is avoiding the awkwardness of attributing a human action to an "it." For instance, in the St. Catherine's example, the writer is probably avoiding "It treated him with respect." That problem can usually be solved by changing the antecedent to the humans who actually performed the action:

He said that he is very grateful to the staff at St. Catherine's Hospital. They treated him with respect.

4. Watch for both verb agreement and pronoun agreement when a singular subject is modified by a phrase or clause containing a plural noun:

The confidence of several families was [not were] attained.

Each of the groups agrees [not agree] to resolve the problem peacefully.

Every student who had already taken both courses is [not are] excused from this requirement.
5. Use a possessive pronoun before a gerund phrase. A gerund is an "ing" verb that serves as a noun. The gerund can stand alone or can begin a gerund phrase, but either way, the word or phrase functions as a noun:

Running is good for you.

Coming to work late can result in disciplinary action.

Since a gerund or gerund phrase functions as a noun, it takes a possessive pronoun:

We'll go to their house for the party instead of their [not them] coming to ours.

**Lack of Parallelism**

Where possible, similar ideas should be expressed in a similar (parallel) structure and grammatical form. Parallelism makes for easier reading and clearer meanings. It also improves sentence rhythm and cuts down on verbiage.

Parallel structure:

Parallelism makes for easier reading and clearer meanings. "easier reading" and "clearer meanings" are parallel.

Non-parallel structure:
Problems occur when the business conceals relevant documents or by deluging the auditors with irrelevant documents.

In the non-parallel example, the writer identifies two situations in which problems occur; however, the two situations are phrased in non-parallel structure. A parallel structure would be:

Problems occur when the business conceals relevant documents or when they deluge the auditors with irrelevant documents.

Now that the structure is parallel, extra words can go:

Problems occur when the business conceals relevant documents or deluge the auditors with irrelevant documents.

Parallel structure is especially important in a list.
When the new commander arrived at the post, he immediately posted a new list of orders: no leaves were to be granted, and no leniency was to be given.

**Miscellaneous Problems**

1. Use the subjective case for a pronoun that functions as the subject of an understood verb. The subjective case is the form the pronoun takes when used as the subject of the sentence ("I," "we," "they"). For example, consider these two sentences:

The corporation's president worked harder than me.
The corporation's president worked harder than I.

Which is correct? The second version is correct, because "I" is the subject of an understood verb "worked." In other words, the sentence is actually a shortened version of "The corporation's president worked harder than I worked."

This is an easy mistake to make because the correct case may sound wrong. If so, the best solution is to add the understood verb or to rephrase the sentence completely to avoid the awkwardness.

2. Use the subjective case for a pronoun that functions as the complement of a subject. A pronoun is a subjective complement when it actually equals the subject of the sentence. For example, consider these two sentences:

The person least anxious after the test was her.
The person least anxious after the test was she.

Which is correct? The second version is correct, because the pronoun in the predicate, "she," actually equals the subject, "the person least anxious after the test." In other words, the sentence is like an algebra equation: The person least anxious after the test = she. In a sentence like this one, the noun or pronoun in the predicate functions like the subject of the sentence. The sentence should read the same as if you turned it around:

She was the person least anxious after the test.
Once again, this is an easy mistake to make because the correct case may sound wrong. In spoken English we often hear "It's him," or "It's me." Again, the best solution may be to reverse the sentence or to re-phrase the sentence completely to avoid the awkwardness.

3. Use "try to" and "sure to" rather than "try and" or "sure and."

Incorrect: Ms. Thompson wanted to try and finish the project by Friday.

Correct: Ms. Thompson wanted to try to finish the project by Friday.

Incorrect: Be sure and pick up the baby from daycare.

Correct: Be sure to pick up the baby from daycare.

This rule makes sense if you think about it. The proper function of the word "and" is to connect two different things. Thus, the "and" in the first sentence should mean that Ms. Thompson wanted to do two different things, but she didn't; she only wanted to do one thing – finish the project. The same is true for the third sentence. The "and" seems to tell the reader that the sentence is an instruction to do two different things, but it isn't. The reader is only to do one thing – pick up the baby.

4. "Hopefully" is an adverb that explains how someone does something, as in "She asked hopefully." Often "hopefully" is
misused in this or a similar fashion: "Hopefully the storm will pass." This use actually asserts that the storm’s passing will be full of hope. The writer actually means "I hope that the storm will pass."

5. Watch out for one more common error with adverbs: the difference between "I feel bad" and "I feel badly." In the first sentence, the writer is commenting on how she feels, either physically (perhaps she has the flu) or emotionally (perhaps she is sad). The first sentence is the proper use of "bad" as an adjective.

However, the second sentence uses "bad" in its form as an adverb. The writer is commenting on her ability to feel; perhaps her fingers are numb. Sometimes writers use the adverbial form "badly" when they mean "bad," perhaps believing that "badly" sounds more elevated.

6. Watch for errors in using "myself" instead of using "I" or "me." "Myself" is used as a reflective pronoun or as a device for emphasis.

Correct: I injured myself. used as a reflective pronoun

Correct: I will draft the interrogatory answers myself. used for emphasis

Each time "myself" is used, test the use by asking whether "I" or "me" could substitute for "myself." If so, using "myself" is incorrect.
Incorrect:  Ms. Alpha and myself will meet you for lunch.

Incorrect:  If you have any questions about this demonstration, contact Mr. Jones or myself.
Writing an Essay

The essay section is a 25 minute test that measures your ability to write an effective essay.

You need to know that in evaluating your essay, readers are looking for your essay to be well organized and properly developed. All of the main ideas should be clearly outlined and explained. It should be error free and contain a variety of examples and reasoning to explain your ideas.

Planning Stage

You should spend about 4 minutes planning and jotting down a few quick notes. Consider the position you are taking, determine a few good reasons for making your choice, some evidence or explanation that support the choice, some effective details you might include, and what order you should use to effectively present your points.

Sticking to the Plan

You should spend about 17 minutes writing your essay. Refer back to your plan, remembering that the topic requires you to make a choice or take a position, and explain your reasoning in some detail. You should also consider the criterion specified so that your essay is convincing to the addressed audience. Make sure that the language you choose communicates your ideas clearly and appropriately.
Reviewing the Plan

You should spend about 4 minutes reviewing your writing, adding or removing as necessary and making any changes needed to enhance clarity.
You should make clear the answer and angle you will choose for your essay, offering a few good reasons for your choice and explaining your reasoning in some detail. As you explain the reasons for your choice, you should develop explanations for each, including such things as evidence, examples, or observations.

Brainstorming Smart

Brainstorming is a process of directing your mind toward idea generation.
Every book on essays will advise you to brainstorm. It’s a method proven to be successful for several reasons. This is the point at which different writers will begin to disagree about how to brainstorm.

The method of brainstorming that is recommended here is two-tier. First you have to brainstorm about what you are going to write about. You want to determine what is going to be the focus of your essay.

Example:
Sample topic: “If you could change one thing about yourself, what would it be? Discuss why.”

Example Brainstorming Level 1: What should I write about?
Intelligence, looks, personality, wealth, family, friends, time, fame, etc.

Your first impulse, and honest reaction, might be to respond with something such as making yourself more beautiful, more intelligent, or more popular. But remember that you want to be able to write at length about this topic. If you choose an answer that while truthful, may sound shallow to an essay reader, such as to become more beautiful and better looking, then you probably won’t win any points with the reader.

Don’t automatically go with your first impulse. The scorer is not giving points for essays that are the most honest, but for essays that are the best written. A well-written essay needs substantial support to explain the reasoning behind your choice.

A choice such as more intelligence could sound shallow, but with a little creativity, you can turn this into an excellent essay. Instead of stating that you want to be more intelligent in order to get better grades, use deeper reasoning. Explain what you would do with that added intelligence. Give examples of how your side research into molecular biology and genetics would be greatly improved with added intelligence and enable you to have a greater chance at your goal of contributing to finding a cure for cancer or diabetes.

If you choose “more popularity” as your topic, you could discuss how you would use your popularity in order to persuade more people to support your humanitarian causes and to be a positive role model for others.
After you’ve decided which topic you are going to write about, then you should begin the second wave of brainstorming, which will be about what you want to discuss about your chosen topic, which examples you want to use and which observations you hope to present.

Example Brainstorming Level 2: You’ve chosen to write about having more free time. Now you brainstorm about what you should say to support that choice. spend more time with friends and family, work at a local homeless shelter, write a novel, open a new business, adopt some children, enjoy your hobbies, etc.

You have to have a proper balance at each level. If you spent too much time at brainstorming level 1, then you won’t have time to decide on what you want to use as examples in level 2. But if you spend too little time at brainstorming level 1, then you may not come up with a really good topic to use for your essay. A good strategy is to practice using this two level brainstorming process until you get comfortable with using it and quickly generating lots of ideas.

Making the Cuts

Once you’ve finished the brainstorming level 2 process, you should look over the supporting ideas you hope to use and the examples you’ve written down from the brainstorming process. Look back over the ideas and see which ones look the best. Which ones could you
write the most about and would give you the most sound reasoning and logic to back up your initial decision of what to write about?

Make mental notes about which supporting ideas from brainstorming level 2 you hope to use, because those will be the ones that will comprise your successive body paragraphs.

Your goal is to hit the high notes. Pick the best ideas you’ve developed and write about those. You only need 3-5 good ideas to write about and may have a loss of focus if you try to write about more than a few important supporting topics.

**Ending at the Start**

Many essay writers will start off by writing their introductory paragraph, along with the main ideas and supporting ideas that will be used, and then force fit the essay into the guidelines that they have predetermined for their essay.

The problem with this is that many of the best ideas will occur to a writer while writing the essay. Rather than immediately jumping into writing your introductory paragraph, take the brainstorming ideas that you’ve developed and begin writing your essay, by expanding on each of the supporting ideas that you’ve chosen and writing your body paragraphs first.

As you write your body paragraphs, new ideas may occur to you that you would prefer to use. Rather than having to go back and make changes to your introductory paragraph, since you haven’t written it
yet, you can just adopt the new ideas as you write and incorporate them into your body paragraphs.

When you’re finished writing your body paragraphs, which should each include at least one primary supporting idea, then you can go back and write your introductory paragraph and make sure that it matches up with each of your body paragraphs and covers the overall topic you are discussing.

Additionally, don’t make the mistake of writing too much in your introductory paragraph. The introduction is not where you explain your reasoning. Save your logic for the body paragraphs, and only use the introductory paragraph in order to briefly outline what you are going to discuss. Brevity is better than wordiness in an introduction.

**Staying Consistent**

A lot of writers write their introductory paragraph, then their body paragraphs, and then their conclusion at the end. The problem with this is that often the whole focus of the essay may have morphed as the writer wrote the essay and the conclusion seems to have a completely different focus than the introduction and the body paragraphs seem to lead take the reader through a tortuous path that changes course with every sentence.

It is vitally important that the introductory and concluding paragraphs are consistent with each other and that the body paragraphs match the introduction and conclusion. You want your paper to be consistent throughout.
Writing your introduction at the end, after you’ve written your body paragraphs, and then following it with your conclusion will be a huge help in maintaining the consistency, but always look back over your essay when you’re finished and make sure that the essay keeps the same focus all the way through.

**Maintaining the Flow**

Part of maintaining consistency in your essay is the proper use of transition words while you’re writing. Use transition words to maintain the essay’s flow. Transition words such as first, second, third, finally, also, additionally, in conclusion, in summary, and furthermore all give the reader an understanding of how the paragraphs flow together.

Example:
Paragraph 1: Introduction
Paragraph 2: First of all, …
Paragraph 3: Secondly, …
Paragraph 4: Finally, …
Paragraph 5: In summary, …

**Backing up Your Points**

If you make a point or statement in your essay, make sure that you back it up with clear examples from your personal experience or observation. Don’t let your points remain unsupported, but ensure that they are provided with some back up substance.
Example: You make the statement, “Renovating older downtowns can be expensive, but is definitely a worthwhile endeavor.”

While many readers may agree with this statement, it shouldn’t be made without backup support:

Consider the following as backup for that example statement: My own hometown created a ten year plan to renovate their downtown area. A higher sales tax was passed in order to pay for the renovation, which ultimately cost $1 million dollars. But once it was finished, the sales tax was removed and the antique shops, which now fill much of the downtown, attract tourists and collectors from hundreds of miles away. The downtown is now completely self-supporting and is a constant source of both pride and new tax revenue to the town’s residents.

Using Proper Grammar

Remember that this essay is your chance to write and make yourself look good and well educated. It is not a test of your knowledge of grammar rules. You don’t have to demonstrate knowledge of every nuance of grammar. Therefore, if you find yourself wondering whether a given phrase should have commas around it or not, rewrite the phrase such that you’re confident it doesn’t need commas or does need commas. There is no need to have any punctuation in your essay that you are only 50% confident of being correct and conforming to the rules of grammar.
Example: You write, “Each of us must choose which path to take in life, whether to strive for improvement, or to settle in to their surroundings.”

You aren’t sure whether you need a comma or a colon after the phrase “to take in life” in the preceding sentence.

Simply rewrite the sentence until you are confident in how it is phrased. Change it to something such as:

“There are two paths: strive for improvement, or settle into surroundings.”

At this point you know you are using the colon properly, and so you can feel free to move on in your essay without fear of having made a grammar mistake.

**Watching Your Vocabulary**

Many essay writers feel that they have to impress the reader with the vocabulary that they have at their disposal. While a good vocabulary can be impressive, and the right word used at the right time can make an essay appear much more professional, they should only be used with caution.

Often a big vocabulary word will be used out of context and it will have the reverse effect. Rather than looking impressive, a vocabulary word used improperly will detract from the essay. So, if you think of a word that you don’t commonly use, only use it if you are absolutely positive...
of its meaning and are sure that you are using it at the right place. Most of the time, you will be safer by sticking with words you are familiar with and accustomed to using.

**Avoiding Tunnel Vision**

Remember that the goal of your essay is to properly cover a topic and write an essay that is somewhat exhaustive in showing every angle and perspective. A lot of writers get tunnel vision. One particular angle occurs to them as the most important and they hammer away at that angle of the topic throughout the entire essay.

Discussing the same angle of a topic at length is considered essay depth. Discussing different angles of the same topic is considered essay breadth. Your goal is to have greater breadth than depth. This isn’t a 20-page thesis written on a specific, obscure topic. Your topics will be fairly generic and broad-based and should have lots of different angles to consider and write about. You want to touch on as many different angles as you can, while still providing supporting backup for each statement you make.

Don’t get stuck in a rut with tunnel vision. Be sure you are spending proper amounts of time on each angle you intend to discuss and not spend the entire essay writing about the same angle.

Example: The topic is whether or not athletics represents too much a part of today’s academic institutions, and you intend to take the side that athletics is not too much of a part.
Your main angle is that an education is far more than simply academics and that athletics programs foster a richer, more diverse education. However, don’t get stuck talking about that one angle. Consider writing about how athletic programs create ties to the community that academics does not. Discuss how athletic programs also encourage donations that benefit academics, as well as athletics.

Always try to consider multiple angles and avoid getting tunnel vision.

**Just Do It**

Some writers will begin their essay by rephrasing the question and talking about the different possibilities. Rather than stating what you’re going to do: just do it.

Don’t use the introduction as a chance to expose your mental ramblings. The introduction should be concise and to the point.

Example – Bad introduction: In this essay, I am going to discuss the thing that I consider to be the most important quality in an individual. It was a difficult decision to make, because there were so many qualities to choose from. Good looks is only skin deep, but intelligence, character, and personality run much deeper. I think the one that is most important is character. Character is the most important because it defines a person, exposes their true nature, and provides strength to overcome any obstacle.

Example – Good introduction: While every characteristic in an individual is important, one stands alone: character. Character defines
individuals, and exposes their true nature. When obstacles arise, character provides the strength to overcome them.

Notice how this second example is clear, concise, and does not ramble on about the decision or ideas that are occurring to the writer.

**Conclusion is Review**

A conclusion is just that: a conclusion. It wraps everything that you’ve written thus far up into a neat summary paragraph. This is not the time to begin introducing new arguments and new reasoning. You want to make sure that you are quickly and concisely reviewing what you’ve written and have a solid ending in which you come across as having proved your point, and made your case effectively.

So, when you’re ready to begin your conclusion, make sure that you’ve flushed out all the new angles you want to cover. Then go back over what you’re written and tie it all together at the end, hitting briefly on all the angles that you’ve discussed.

Additionally, a conclusion is not an apology. You should never apologize for not knowing more or writing more. End your essay with purpose and definitively summarize what you have stated.

**Communicating Reason, not Passion**

The readers that read and score your essay are not looking for passionate essays that are full of hot air and lacking in reason. They are interested in well thought out essays that communicate reasonable
arguments and logic, backed up by sound examples and observations. If the topic you choose is one that you are passionate about, make sure that you present more than just heated emotion, but also cool logic.

Example: The topic is about school uniforms, and you are passionately opposed.

Rather than writing, “School uniforms is a stupid idea, and will never work,” try writing, “School uniforms have been an admitted failure by their original sponsors in all three implementation efforts during the last decade.”

The first statement may be full of passion, but clearly lacks reason, while the second statement contains solid facts as examples.

**Answering the Why?**

While it’s important that you communicate reason, misguided reason is ineffective. Always make sure that the examples you are providing and the reasoning you are using is being directed at answering the topic question.

Flawless logic that doesn’t answer the question and doesn’t contribute to the point you’re trying to make is completely useless. As you think of main ideas and supporting ideas to use, take a few seconds and confirm that they will adequately answer the topic and veer off down a tangent that is not directly related.
Example: The topic is about what was the most important thing you have ever learned in school and asks you to discuss why. Your answer is a quest for knowledge. Your supporting ideas include having been forced to work on large projects and do exhaustive research into topics that you normally wouldn’t read about, which expanded your mind.

A tangent that you would not want to pursue might be to provide statistics on how many hours you worked on a research paper in elementary school. While factual, those facts do not help answer why a quest for knowledge is the most important thing you have ever learned in school.

Make sure that the facts and reasons you are stating directly help you in your goal of answering the topic question.