GRE Tales

Study Guide

Best GRE Strategies

GRE General Test Review for the

Graduate Record Examination

Dear Future Exam Success Story:

Our goal in writing our study guide was to cover the content on the test, as well as provide insight into typical test taking mistakes and how to overcome them.

Standardized tests are a key component of being successful, which only increases the importance of doing well in the high-pressure high-stakes environment of test day. How well you do on this test will have a significant impact on your future- and we have the research and practical advice to help you execute on test day.

The product you're reading now is designed to exploit weaknesses in the test itself, and help you avoid the most common errors test takers frequently make.

How to use this study guide

We don't want to waste your time. Our study guide is fast-paced and fluff-free. We suggest going through it a number of times, as repetition is an important part of learning new information and concepts.

First, read through the study guide completely to get a feel for the content and organization. Read the general success strategies first, and then proceed to the content sections. Each tip has been carefully selected for its effectiveness.

Second, read through the study guide again, and take notes in the margins and highlight those sections where you may have a particular weakness.

Finally, bring the manual with you on test day and study it before the exam begins.

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Secret Key #1 – Time is Your Greatest Enemy

To succeed on the GRE, you must use your time wisely. Most students do not finish at least one section. The typical computer-based GRE has time limits similar to those in the table below:

SECTION	Total amount of time allotted	Number of questions	Time to answer each question
Analytical Writing I Issue Task	45 min	1	45 min
Analytical Writing II Argument Task	30 min	1	30 min
Verbal	30 min	30	60 seconds
Quantitative	45 min	28	96 seconds
Verbal / Quantitative*	30 – 45 min.	N/A	N/A
Research**	N/A	N/A	N/A

The typical paper-based GRE has time limits similar to those in the table below:

SECTION	Total amount of time allotted	Number of questions	Time to answer each question
Analytical Writing I Issue Task	45 min	1	45 min
Analytical Writing II Argument Task	30 min	1	30 min
Verbal (2 sections)	30 min each	38 each	48 seconds
Quantitative (2 sections)	30 min each	30 each	60 seconds
Verbal / Quantitative*	30 – 45 min.	N/A	N/A

*This section is unidentified and does not affect your score. It is used to test out possible questions on future GRE tests.

**This section is clearly identified and is always at the end of the test.

As you can see, the time constraints are brutal. To succeed, you must ration your time properly. On the paper-based exam, time management is especially critical because every question on average counts the same toward your final score. If you run out of time on any passage, the questions that you do not answer will hurt your score far more than earlier questions that you spent extra time on and feel certain are correct.

Success Strategy #1

Pace Yourself

Wear a watch to the GRE Test. At the beginning of the test, check the time (or start a chronometer on your watch to count the minutes), and check the time after each passage or every few questions to make sure you are "on schedule." An onscreen clock display will keep track of your remaining time, but it may be easier for you to monitor your pace based on how many minutes have been used, rather than how many minutes remain.

Remember that on the Quantitative Test you have about one and a half minutes per question, and on the Verbal Test you have exactly one minute per question, which makes it easy to keep track of your time.

If you find that you are falling behind time during the test, you must speed up. While on the paper-based exam, where the time constraints are tighter, you can skip questions and return to them later, on the computer based exam you cannot return to skipped questions. After making your answer selection, you will be asked to confirm your answer. Once you confirm the answer, that is it. You cannot return to the question. Although a rushed answer is more likely to be incorrect, it is better to miss a couple of questions by being rushed, than to completely miss later questions by not having enough time. It is better to end with more time than you need than to run out of time.

If you are forced to speed up, do it efficiently. Usually one or more answer choices can be eliminated without too much difficulty. Above all, don't panic. Don't speed up and just begin guessing at random choices. By pacing yourself, and continually monitoring your progress against the clock or your watch, you will always know exactly how far ahead or behind you are with your available time. If you find that you are one minute behind on the Verbal Test, don't skip one question without spending any time on it, just to catch back up. Spend perhaps 45 seconds on the question and after four questions, you will have caught back up more gradually. Once you catch back up, you can continue working each problem at your normal pace.

Furthermore, don't dwell on the problems that you were rushed on. If a problem was taking up too much time and you made a hurried guess, it must be difficult. The difficult questions are the ones you are most likely to miss anyway, so it isn't a big loss.

In the computer-based version of the GRE your questions are selected while taking the test, and are not predetermined beforehand. This allows each student to take a test that is custom tailored to their abilities. The first question in each section is of medium difficulty. If that question is answered correctly, the next question will be of increased difficulty. If it is answered incorrectly, an easier question will be provided next. This means that most of the questions that you are asked will not be too easy or too hard for you, and should help you maintain a good pace throughout the test. Thus, because guessing increases your chances of getting a question incorrect, and if you are behind on your time and are forced to guess and guess wrong, then the questions will become easier, making it easier to speed up your pace and catch back up on your time. However, do not intentionally guess wrong in order to make the questions easier. Easier questions are factored into your final score calculations, so it does not help you.

Lastly, sometimes it is beneficial to slow down if you are constantly getting ahead of time. You are always more likely to catch a careless mistake by working more slowly than

quickly, and among very high-scoring students (those who are likely to have lots of time left over), careless errors affect the score more than mastery of material.

Estimation

For some math questions, estimate. Calculation takes time, and you should avoid it whenever possible. You can usually eliminate three obviously wrong choices quite easily. For example, suppose a graph shows that an object has traveled 48 meters in 11 seconds, and you are asked to find its speed. You are given these choices:

a. 250 m/s
b. 42 m/s
c. 4.4 m/s
d. 1.2 m/s

You know that 48 divided by 11 will be a little over 4, so you can pick out C as the answer without ever doing the calculation.

Scanning

For the Verbal Test, don't waste time reading, enjoying, and completely understanding the passage. Simply scan the passage to get a rough idea of what it is about. You will return to the passage for each question, so there is no need to memorize it. Only spend as much time scanning as is necessary to get a vague impression of its overall subject content.

Secret Key #2 – Guessing is Not Guesswork

You probably know that guessing is a good idea on the GRE- unlike other standardized tests, there is no penalty for getting a wrong answer. Even if you have no idea about a question, you still have a 20-25% chance of getting it right.

Most students do not understand the impact that proper guessing can have on their score. Unless you score extremely high, guessing will significantly contribute to your final score.

Monkeys Take the GRE

If you have only four answer choices, then you have approximately a 25% chance of getting it correct. What most students don't realize is that to ensure a 25% chance, you have to guess randomly. If you put 20 monkeys in a room to take the GRE, assuming they answered once per question and behaved themselves, on average they would get 25% of the questions correct. Put 20 college students in the room, and the average will be much lower among guessed questions. Why?

1. GRE intentionally writes deceptive answer choices that "look" right. A student has no idea about a question, so picks the "best looking" answer, which is often wrong. The monkey has no idea what looks good and what doesn't, so will consistently be lucky about 25% of the time.
2. Students will eliminate answer choices from the guessing pool based on a hunch or intuition. Simple but correct answers often get excluded, leaving a 0% chance of being correct. The monkey has no clue, and often gets lucky with the best choice.

This is why the process of elimination endorsed by most test courses is flawed and detrimental to your performance- students don't guess, they make an ignorant stab in the dark that is usually worse than random.

Success Strategy #2

Let me introduce one of the most valuable ideas of this course- the $5 challenge:

You only mark your "best guess" if you are willing to bet $5 on it.
You only eliminate choices from guessing if you are willing to bet $5 on it.

Why $5? Five dollars is an amount of money that is small yet not insignificant, and can really add up fast (20 questions could cost you $100). Likewise, each answer choice on one question of the GRE will have a small impact on your overall score, but it can really add up to a lot of points in the end.

The process of elimination IS valuable. The following shows your chance of guessing it right:

If you eliminate this many choices:	0	1	2	3	4
Verbal /Quantitative (5 choices)	20%	25%	33%	50%	100%
Quantitative (4 choices)	25%	33%	50%	100%	N/A

If you accidentally eliminate the right answer or go on a hunch for an incorrect answer, your chances drop dramatically: to 0%. By guessing among all the answer choices, you are GUARANTEED to have a shot at the right answer.

That's why the $5 test is so valuable- if you give up the advantage and safety of a pure guess, it had better be worth the risk.

What we still haven't covered is how to be sure that whatever guess you make is truly random. Here's the easiest way:

Always pick the first answer choice among those remaining.

Such a technique means that you have decided, **before you see a single test question**, exactly how you are going to guess- and since the order of choices tells you nothing about which one is correct, this guessing technique is perfectly random.

Let's try an example-

A student encounters the following problem on the Quantitative Test:

What is the cosine of an angle in a right triangle that is 3 meters on the adjacent side, 5 meters on the hypotenuse, and 4 meters on the opposite side?

A. 1
B. 0.6
C. 0.8
D. 0.75
E. 1.25

The student has a small idea about this question- he is pretty sure that cosine is opposite over hypotenuse, but he wouldn't bet $5 on it. He knows that cosine is "something" over hypotenuse, and since the hypotenuse is the largest number, he is willing to bet $5 on both choices A and E not being correct. So he is down to B, C, and D. At this point, he guesses B, since B is the first choice remaining.

The student is correct by choosing B, since cosine is adjacent over hypotenuse. He only eliminated those choices he was willing to bet money on, AND he did not let his stale memories (often things not known definitely will get mixed up in the exact opposite arrangement in one's head) about the formula for cosine influence his guess. He blindly chose the first remaining choice, and was rewarded with the fruits of a random guess.

This section is not meant to scare you away from making educated guesses or eliminating choices- you just need to define when a choice is worth eliminating. The $5 test, along with a pre-defined random guessing strategy, is the best way to make sure you reap all of the benefits of guessing.

Specific Guessing Techniques

Slang

Scientific sounding answers are better than slang ones. In the answer choices below, choice B is much less scientific and is incorrect, while choice A is a scientific analytical choice and is correct.

Example:

A.) To compare the outcomes of the two different kinds of treatment.

B.) Because some subjects insisted on getting one or the other of the treatments.

Extreme Statements

Avoid wild answers that throw out highly controversial ideas that are proclaimed as established fact. Choice A is a radical idea and is incorrect. Choice B is a calm rational statement. Notice that Choice B does not make a definitive, uncompromising stance, using a hedge word "if" to provide wiggle room.

Example:

A.) Bypass surgery should be discontinued completely.

B.) Medication should be used instead of surgery for patients who have not had a heart attack if they suffer from mild chest pain and mild coronary artery blockage.

Similar Answer Choices

When you have two answer choices that are direct opposites, one of them is usually the correct answer.

Example:

A.) Passage 1 described the author's reasoning about the influence of his childhood on his adult life.
B.) Passage 2 described the author's reasoning about the influence of his childhood on his adult life.

These two answer choices are very similar and fall into the same family of answer choices. A family of answer choices is when two or three answer choices are very similar. Often two will be opposites and one may show an equality.
Example:
A.) Operation I or Operation II can be conducted at equal cost
B.) Operation I would be less expensive than Operation II
C.) Operation II would be less expensive than Operation I
D.) Neither Operation I nor Operation II would be effective at preventing the spread of cancer.

Note how the first three choices are all related. They all ask about a cost comparison. Beware of immediately recognizing choices B and C as opposites and choosing one of those two. Choice A is in the same family of questions and should be considered as well. However, choice D is not in the same family of questions. It has nothing to do with cost and can be discounted in most cases.

Hedging

When asked for a conclusion that may be drawn, look for critical "hedge" phrases, such as likely, may, can, will often, sometimes, etc, often, almost, mostly, usually, generally, rarely, sometimes. Question writers insert these hedge phrases to cover every possibility. Often an answer will be wrong simply because it leaves no room for exception. Avoid answer choices that have definitive words like "exactly," and "always".

Summary of Guessing Techniques

1. Eliminate as many choices as you can by using the $5 test. Use the common guessing strategies to help in the elimination process, but only eliminate choices that pass the $5 test.
2. Among the remaining choices, only pick your "best guess" if it passes the $5 test. If you eliminated one or more choices with the $5 test in step 1, then guess randomly by picking the first remaining choice. Otherwise, pick the first answer choice.

Secret Key #3 – Practice Smarter, Not Harder

Many students delay the test preparation process because they dread the awful amounts of practice time they think necessary to succeed on the test. We have refined an effective method that will take you only a fraction of the time.

There are a number of "obstacles" in your way on the GRE. Among these are answering questions, finishing in time, and mastering test-taking strategies. All must be executed on the day of the test at peak performance, or your score will suffer. The GRE is a mental marathon that has a large impact on your future.

Just like a marathon runner, it is important to work your way up to the full challenge. So first you just worry about questions, and then time, and finally strategy:

Success Strategy #3

1. Find a good source for GRE practice tests.
2. If you are willing to make a larger time investment, consider using more than one study guide- often the different approaches of multiple authors will help you "get" difficult concepts.
3. Take a practice test with no time constraints, with all study helps "open book." Take your time with questions and focus on applying the strategies.
4. Take another test, this time with time constraints, with all guides "open book."
5. Take a final practice test with no open material and time limits.

If you have time to take more practice tests, just repeat step 5. By gradually exposing yourself to the full rigors of the test environment, you will condition your mind to the stress of test day and maximize your success.

Secret Key #4 – Prepare, Don't Procrastinate

Let me state an obvious fact: if you take the GRE three times, you will get three different scores. This is due to the way you feel on test day, the level of preparedness you have, and, despite GRE's claims to the contrary, some tests WILL be easier for you than others, especially on the Verbal Test.

Since your acceptance and qualification for scholarships will largely depend on your score, you should maximize your chances of success. On most standardized tests, that means you can take the test multiple times and only report your best score for an application for admission. The GRE works differently.

Immediately after you have completed taking the GRE, and while you are still in the testing room, you have the opportunity to cancel sending out your scores. Note: This is before you have ever even seen your unofficial scores.

If you decide to cancel your scores, you will not be able to view your scores. If you do not decide to cancel your scores, then and there, the opportunity has passed. You will not be able to cancel them after that point. Therefore, prepare for this moment in advance. You know your abilities and can probably base a good guess as to what you might expect based on other standardized tests and percentile rankings that you have scored in the past.

By checking with your university of choice, you can determine what score you will need to be accepted or to receive a scholarship. This will give you an idea of how difficult it will be for you to meet your targeted goal. After you have taken the test, if you feel that you have met that goal, go ahead and accept your scores. You should only cancel your scores if you:

1.) expect that you will definitely have the time, money, and desire to take the GRE again
2.) are confident that you did not meet the score that you needed to get into your school of choice
3.) would not be satisfied at another school with a lower standard of admission

Note: Once a score is cancelled, it cannot be reinstated.

Even if you do decide to cancel your scores, your record will still bear evidence of your test. In the future when you take another test and submit those scores, that recent score, as well as every GRE score that you have taken in the last 5 years will also be submitted. If you had canceled a prior score, it will show that a score was canceled, though the score itself will not be revealed.

When your scores for the last five years are received, each school approaches the scores differently. Most schools will simply take the most recent score. Some schools have a different approach and will average your scores. Others may disregard any score that is significantly lower than another score, so that the low score will not unfairly distort the student's true ability. A few schools will even take your highest score in each section.

Check with your school of choice and determine what their standard policy on multiple GRE scores is. If they only use the latest or highest score, you should definitely consider retaking the test if your score is lower than you expected and needed for admission.

Also, remember that you can only take the GRE once per calendar month. This applies even if you took the test and canceled the scores earlier that month.

Success Strategy #4

Since repeatedly taking the GRE usually offers only marginal improvements and older scores are still reported along with newer scores, make sure that you are adequately prepared the first time. Even though you can cancel your score, that cancellation will still be reported in the future.

Don't take the GRE as a "practice" test. Feel free to take sample tests on your own, but when you go to take the GRE, be prepared, be focused, and do your best the first time!

Determine in advance whether or not you have the time and resources to take the GRE multiple times. Don't make a hasty emotional decision after taking your test. You will feel drained after taking such an intense test and should think through your options ahead of time.

If you plan to repeatedly take the GRE, check with your schools of choice and determine their policy on multiple GRE scores. That may help in your decision to retake the test.

Secret Key #5 - Test Yourself

Everyone knows that time is money. There is no need to spend too much of your time or too little of your time preparing for the test. You should only spend as much of your precious time preparing as is necessary for you to get the score you need.

Once you have taken a practice test under real conditions of time constraints, then you will know if you are ready for the test or not.

If you have scored extremely high the first time that you take the practice test, then there is not much point in spending countless hours studying. You are already there.

Benchmark your abilities by retaking practice tests and seeing how much you have improved. Once you score high enough to guarantee success, then you are ready.

If you have scored well below where you need, then knuckle down and begin studying in earnest. Check your improvement regularly through the use of practice tests under real conditions. Above all, don't worry, panic, or give up. The key is perseverance!

Then, when you go to take the test, remain confident and remember how well you did on the practice tests. If you can score high enough on a practice test, then you can do the same on the real thing.

Top 20 Test Taking Tips

1. Carefully follow all the test registration procedures
2. Know the test directions, duration, topics, question types, how many questions
3. Setup a flexible study schedule at least 3-4 weeks before test day
4. Study during the time of day you are most alert, relaxed, and stress free
5. Maximize your learning style; visual learner use visual study aids, auditory learner use auditory study aids
6. Focus on your weakest knowledge base
7. Find a study partner to review with and help clarify questions
8. Practice, practice, practice
9. Get a good night's sleep; don't try to cram the night before the test
10. Eat a well balanced meal
11. Know the exact physical location of the testing site; drive the route to the site prior to test day
12. Bring a set of ear plugs; the testing center could be noisy
13. Wear comfortable, loose fitting, layered clothing to the testing center; prepare for it to be either cold or hot during the test
14. Bring at least 2 current forms of ID to the testing center
15. Arrive to the test early; be prepared to wait and be patient
16. Eliminate the obviously wrong answer choices, then guess the first remaining choice
17. Pace yourself; don't rush, but keep working and move on if you get stuck
18. Maintain a positive attitude even if the test is going poorly
19. Keep your first answer unless you are positive it is wrong
20. Check your work, don't make a careless mistake

General Strategies

The most important thing you can do is to ignore your fears and jump into the test immediately- do not be overwhelmed by any strange-sounding terms. You have to jump into the test like jumping into a pool- all at once is the easiest way.

Make Predictions

As you read and understand the question, try to guess what the answer will be. Remember that several of the answer choices are wrong, and once you begin reading them, your mind will immediately become cluttered with answer choices designed to throw you off. Your mind is typically the most focused immediately after you have read the question and digested its contents. If you can, try to predict what the correct answer will be. You may be surprised at what you can predict.

Quickly scan the choices and see if your prediction is in the listed answer choices. If it is, then you can be quite confident that you have the right answer. It still won't hurt to check the other answer choices, but most of the time, you've got it!

Answer the Question

It may seem obvious to only pick answer choices that answer the question, but the test writers can create some excellent answer choices that are wrong. Don't pick an answer just because it sounds right, or you believe it to be true. It MUST answer the question. Once you've made your selection, always go back and check it against the question and make sure that you didn't misread the question, and the answer choice does answer the question posed.

Benchmark

After you read the first answer choice, decide if you think it sounds correct or not. If it doesn't, move on to the next answer choice. If it does, mentally mark that answer choice. This doesn't mean that you've definitely selected it as your answer choice; it just means

that it's the best you've seen thus far. Go ahead and read the next choice. If the next choice is worse than the one you've already selected, keep going to the next answer choice. If the next choice is better than the choice you've already selected, mentally mark the new answer choice as your best guess.

The first answer choice that you select becomes your standard. Every other answer choice must be benchmarked against that standard. That choice is correct until proven otherwise by another answer choice beating it out. Once you've decided that no other answer choice seems as good, do one final check to ensure that your answer choice answers the question posed.

Valid Information

Don't discount any of the information provided in the question. Every piece of information may be necessary to determine the correct answer. None of the information in the question is there to throw you off (while the answer choices will certainly have information to throw you off). If two seemingly unrelated topics are discussed, don't ignore either. You can be confident there is a relationship, or it wouldn't be included in the question, and you are probably going to have to determine the nature of that relationship to find the answer.

Avoid "Fact Traps"

Don't get distracted by a choice that is factually true. Your search is for the answer that answers the question. Stay focused and don't fall for an answer that is true but incorrect. Always go back to the question and make sure you're choosing an answer that actually answers the question and is not just a true statement. An answer can be factually correct, but it MUST answer the question asked. Additionally, two answers can both be seemingly correct, so be sure to read all of the answer choices, and make sure that you get the one that BEST answers the question.

Milk the Question

Some of the questions may throw you completely off. They might deal with a subject you

have not been exposed to, or one that you haven't reviewed in years. While your lack of knowledge about the subject will be a hindrance, the question itself can give you many clues that will help you find the correct answer. Read the question carefully and look for clues. Watch particularly for adjectives and nouns describing difficult terms or words that you don't recognize. Regardless of if you completely understand a word or not, replacing it with a synonym either provided or one you more familiar with may help you to understand what the questions are asking. Rather than wracking your mind about specific detailed information concerning a difficult term or word, try to use mental substitutes that are easier to understand.

The Trap of Familiarity

Don't just choose a word because you recognize it. On difficult questions, you may not recognize a number of words in the answer choices. The test writers don't put "make-believe" words on the test; so don't think that just because you only recognize all the words in one answer choice means that answer choice must be correct. If you only recognize words in one answer choice, then focus on that one. Is it correct? Try your best to determine if it is correct. If it is correct, that is great, but if it isn't correct, eliminate it. Each word and answer choice you eliminate increases your chances of getting the question correct, even if you then have to guess among the unfamiliar choices.

Eliminate Answers

Eliminate choices as soon as you realize they are wrong. But be careful! Make sure you consider all of the possible answer choices. Just because one appears right, doesn't mean that the next one won't be even better! The test writers will usually put more than one good answer choice for every question, so read all of them. Don't worry if you are stuck between two that seem right. By getting down to just two remaining possible choices, your odds are now 50/50. Rather than wasting too much time, play the odds. You are guessing, but guessing wisely, because you've been able to knock out some of the answer choices that you know are wrong. If you are eliminating choices and realize that the last answer choice you are left with is also obviously wrong, don't panic. Start over and consider each choice

again. There may easily be something that you missed the first time and will realize on the second pass.

Tough Questions

If you are stumped on a problem or it appears too hard or too difficult, don't waste time. Move on! Remember though, if you can quickly check for obviously incorrect answer choices, your chances of guessing correctly are greatly improved. Before you completely give up, at least try to knock out a couple of possible answers. Eliminate what you can and then guess at the remaining answer choices before moving on.

Brainstorm

If you get stuck on a difficult question, spend a few seconds quickly brainstorming. Run through the complete list of possible answer choices. Look at each choice and ask yourself, "Could this answer the question satisfactorily?" Go through each answer choice and consider it independently of the other. By systematically going through all possibilities, you may find something that you would otherwise overlook. Remember that when you get stuck, it's important to try to keep moving.

Read Carefully

Understand the problem. Read the question and answer choices carefully. Don't miss the question because you misread the terms. You have plenty of time to read each question thoroughly and make sure you understand what is being asked. Yet a happy medium must be attained, so don't waste too much time. You must read carefully, but efficiently.

Face Value

When in doubt, use common sense. Always accept the situation in the problem at face value. Don't read too much into it. These problems will not require you to make huge leaps of logic. The test writers aren't trying to throw you off with a cheap trick. If you have to go beyond creativity and make a leap of logic in order to have an answer choice answer the question, then you should look at the other answer choices. Don't overcomplicate the

problem by creating theoretical relationships or explanations that will warp time or space. These are normal problems rooted in reality. It's just that the applicable relationship or explanation may not be readily apparent and you have to figure things out. Use your common sense to interpret anything that isn't clear.

Prefixes

If you're having trouble with a word in the question or answer choices, try dissecting it. Take advantage of every clue that the word might include. Prefixes and suffixes can be a huge help. Usually they allow you to determine a basic meaning. Pre- means before, post- means after, pro - is positive, de- is negative. From these prefixes and suffixes, you can get an idea of the general meaning of the word and try to put it into context. Beware though of any traps. Just because con is the opposite of pro, doesn't necessarily mean congress is the opposite of progress!

Hedge Phrases

Watch out for critical "hedge" phrases, such as likely, may, can, will often, sometimes, often, almost, mostly, usually, generally, rarely, sometimes. Question writers insert these hedge phrases to cover every possibility. Often an answer choice will be wrong simply because it leaves no room for exception. Avoid answer choices that have definitive words like "exactly," and "always".

Switchback Words

Stay alert for "switchbacks". These are the words and phrases frequently used to alert you to shifts in thought. The most common switchback word is "but". Others include although, however, nevertheless, on the other hand, even though, while, in spite of, despite, regardless of.

New Information

Correct answer choices will rarely have completely new information included. Answer choices typically are straightforward reflections of the material asked about and will

directly relate to the question. If a new piece of information is included in an answer choice that doesn't even seem to relate to the topic being asked about, then that answer choice is likely incorrect. All of the information needed to answer the question is usually provided for you, and so you should not have to make guesses that are unsupported or choose answer choices that require unknown information that cannot be reasoned on its own.

Time Management

On technical questions, don't get lost on the technical terms. Don't spend too much time on any one question. If you don't know what a term means, then since you don't have a dictionary, odds are you aren't going to get much further. You should immediately recognize terms as whether or not you know them. If you don't, work with the other clues that you have, the other answer choices and terms provided, but don't waste too much time trying to figure out a difficult term.

Contextual Clues

Look for contextual clues. An answer can be right but not correct. The contextual clues will help you find the answer that is most right and is correct. Understand the context in which a phrase or statement is made. This will help you make important distinctions.

Don't Panic

Panicking will not answer any questions for you. Therefore, it isn't helpful. When you first see the question, if your mind goes blank, take a deep breath. Force yourself to mechanically go through the steps of solving the problem and using the strategies you've learned.

Pace Yourself

Don't get clock fever. It's easy to be overwhelmed when you're looking at a page full of questions, your mind is full of random thoughts and feeling confused, and the clock is ticking down faster than you would like. Calm down and maintain the pace that you have set for yourself. As long as you are on track by monitoring your pace, you are guaranteed

to have enough time for yourself. When you get to the last few minutes of the test, it may seem like you won't have enough time left, but if you only have as many questions as you should have left at that point, then you're right on track!

Answer Selection

The best way to pick an answer choice is to eliminate all of those that are wrong, until only one is left and confirm that is the correct answer. Sometimes though, an answer choice may immediately look right. Be careful! Take a second to make sure that the other choices are not equally obvious. Don't make a hasty mistake. There are only two times that you should stop before checking other answers. First is when you are positive that the answer choice you have selected is correct. Second is when time is almost out and you have to make a quick guess!

Check Your Work

Since you will probably not know every term listed and the answer to every question, it is important that you get credit for the ones that you do know. Don't miss any questions through careless mistakes. If at all possible, try to take a second to look back over your answer selection and make sure you've selected the correct answer choice and haven't made a costly careless mistake (such as marking an answer choice that you didn't mean to mark). This quick double check should more than pay for itself in caught mistakes for the time it costs.

Beware of Directly Quoted Answers

Sometimes an answer choice will repeat word for word a portion of the question or reference section. However, beware of such exact duplication – it may be a trap! More than likely, the correct choice will paraphrase or summarize a point, rather than being exactly the same wording.

Slang

Scientific sounding answers are better than slang ones. An answer choice that begins "To compare the outcomes…" is much more likely to be correct than one that begins "Because some people insisted…"

Extreme Statements

Avoid wild answers that throw out highly controversial ideas that are proclaimed as established fact. An answer choice that states the "process should used in certain situations, if…" is much more likely to be correct than one that states the "process should be discontinued completely." The first is a calm rational statement and doesn't even make a definitive, uncompromising stance, using a hedge word "if" to provide wiggle room, whereas the second choice is a radical idea and far more extreme.

Answer Choice Families

When you have two or more answer choices that are direct opposites or parallels, one of them is usually the correct answer. For instance, if one answer choice states "x increases" and another answer choice states "x decreases" or "y increases," then those two or three answer choices are very similar in construction and fall into the same family of answer choices. A family of answer choices is when two or three answer choices are very similar in construction, and yet often have a directly opposite meaning. Usually the correct answer choice will be in that family of answer choices. The "odd man out" or answer choice that doesn't seem to fit the parallel construction of the other answer choices is more likely to be incorrect.

Verbal Test

The Verbal portion of the GRE consists of a 30 minute section with 30 questions.

There are four types of questions in the GRE Verbal Test.

1.) Antonyms
2.) Analogies
3.) Sentence Completion
4.) Reading Comprehension

Antonyms

The Verbal Ability section of the GRE will include approximately 9 antonym questions. We begin our review for the verbal ability section by discussing these questions, in part, because they are the simplest. An antonym is an opposite (incidentally, the antonym of antonym is synonym!). Black and white, up and down, good and bad, are all common sets of antonyms. Of course, the antonyms that appear on the GRE will be a bit more sophisticated. Nevertheless, if you remember a few important tricks, you should have no trouble excelling at these questions.

Each antonym question will consist of one word in uppercase followed by five possible answers, all in lower case. You will be selecting the antonym for the uppercase word from the five possible choices that will be given. Clearly, your success on this part of the exam will depend largely on the size and strength of your vocabulary. It is much easier to determine an antonym when you have a detailed definition for the given word. In preparation for the GRE, you should compile a list of new vocabulary words. There are a number of ways to make such a list: you can note unfamiliar words as they appear to you in your reading, you can review the free copies of the GRE posted on the ETS website, or you can find lists of advanced vocabulary on the Internet. Remember that the words used on the GRE will not be specialized terminology from a specific area. For instance, you will not find jargon from chemistry or microbiology on the exam. Instead, the words will be those commonly used among general subjects.

Since specialized vocabulary is not included on the GRE, the majority of the words used in the antonym section will be adjectives rather than nouns. Most of the specific vocabulary within a particular discipline is created to name things. Biologists need special words to indicate the parts of the cell, and electricians need different words to indicate the components of a circuit. Both of these specialists, however, can use the same adjectives to describe things. Since more adjectives are in general use throughout many fields, they are more likely to appear on the GRE.

In any case, one of your first steps on an antonym question should be to identify the part of speech of the given word. This should allow you to immediately eliminate a couple of the answer choices. Think of a few common antonyms, and notice how they are identical parts of speech: happy and sad (adjectives), laugh and cry (verbs), leader and follower (nouns). This is true of all antonyms. It simply does not make sense for a noun to be the antonym of an adjective, or vice versa. The makers of the GRE will often include a couple of answer choices that are not the same part of speech as the given word, and if you can immediately eliminate these incorrect options, you can save yourself some time. Be aware, however, that some words have multiple roles. The word flip, for instance, can either be a verb meaning turn over or an adjective meaning careless or glib. Do not just assume that the test maker is referring to the most common usage of the word: always consider whether the given word has other possible uses.

Also, remember that some words do not have opposites, and can therefore be eliminated from consideration immediately. Specifically, many nouns do not have ready antonyms. (Try to come up with an antonym for carpet or automobile). This is another reason why most antonym questions involve adjectives and, less frequently, verbs. Once you have determined, or at least narrowed down, the part of speech of the given word, you can turn your attention to its definition. Hopefully, your diligent vocabulary preparation will make this an easy process. If you immediately know the definition of the given word, answering the question should be easy. In some cases, however, you may need to tease out the meaning of a word by considering its root, prefix, or suffix. The root of the word is simply

its base. In the word impenetrable, for instance, the root is –penetr-. You probably recognize this root from simpler words like penetrate or penetration. Since the prefix im- means something like "not," and the suffix -able means something like "able to be," we can guess that the word impenetrable probably means "not able to be penetrated." Not every word will be as easily discovered as this, but you can save yourself some frustration by remembering to isolate the root of a complex word, and by memorizing the basic prefixes and suffixes. You can find a list of these in the back of any basic dictionary or thesaurus.

Of course, mastery of prefixes and suffixes will not be enough to help you if the root of the word is totally unknown. Moreover, many words (especially those derived from the Anglo-Saxon rather than Latinate vocabulary) will not have prefixes or suffixes. When this is the case, and the word is foreign to you, you will have to rely on a more advanced strategy. The best way to start is by eliminating as many answer choices as possible. In other words, eliminate all those choices that do not appear to be the correct part of speech or ones that do not have antonyms. Then you must do your best to determine whether the given word is positive or negative. Many times, students who do not know the precise definition of an adjective will be able to correctly state whether it is a good or a bad quality. They may not be able to tell why the quality is good or bad, but they can still find the appropriate antonym this way. If you feel like you can reasonably assert that the given word is positive, try to find the word that is negative among the answer choices. At the very least, you may be able to narrow down the answer choices by eliminating some words that you know to be positive.

Unfortunately, no matter how much vocabulary preparation you engage in, or how skilled you are at teasing out the meanings of unfamiliar words, it is possible that there will be an antonym question that leaves you stumped. In this case, a good rule of thumb is to select the most extreme answer choices available. The makers of the GRE do not want questions to be ambiguous or unclear, so they are more likely to create questions in which the opposition between antonyms is stark. In other words, antonyms are more likely to be two extremes rather than two moderate but opposing words. As an example, the antonyms

benevolent and malicious are more likely to appear than are sympathetic and apathetic. The former pair is more dramatically opposed, and is therefore easier for the makers of the test to defend as antonyms.

When you confront the antonyms on the GRE, you should immediately identify the part or parts of speech of the given word, and eliminate any answer choices that are not the same part of speech. Eliminate any answer choices that are obvious synonyms. If you are not sure about the given word, try to discover its meaning by paying attention to its root, prefix, or suffix. If you still cannot make heads or tails of the given word, try to determine whether it is essentially positive or negative. In those rare cases when the given word is entirely foreign to you, pick the most extreme possible answer and hope for the best. Your success on the antonym section of the GRE will be determined by your vocabulary and by your mastery of these basic test-taking strategies.

Nearly and Perfect Opposites

You must determine which of five provided choices best describes the opposite of a certain word. Nearly opposite may often be more correct, because the goal is to test your understanding of the nuances, or little differences, between words. A perfect opposite may not exist, so don't be concerned if your answer choice is not a complete opposite. Focus upon edging closer to the word. Eliminate the words that you know aren't correct first. Then narrow your search. Mentally cross out the words that are the most similar to the main word until you are left with the one that is the least similar.

Prefixes

Take advantage of every clue that the word might include. Prefixes and suffixes can be a huge help. Usually they allow you to determine a basic meaning. Pre- means before, post- means after, pro – is positive, de- is negative. From these prefixes and suffixes, you can get an idea of the general meaning of the word and look for its opposite. Beware though of any traps. Just because con is the opposite of pro, doesn't necessarily mean congress is the opposite of progress!

Positive vs. Negative

Many words can be easily determined to be a positive word or a negative word. Words such as despicable, and gruesome, bleak are all negative. Words such as ecstatic, praiseworthy, and magnificent are all positive. You will be surprised at how many words can be considered as either positive or negative. Once that is determined, you can quickly eliminate any other similar words and focus on those that have the other characteristic, whether positive or negative.

Word Strength

Part of the challenge is determining the most nearly opposite word. This is particularly true when two words seem to be opposites. When analyzing a word, determine how strong it is. For example, stupendous and good are both positive words. However, stupendous is a much stronger positive adjective than good. Also, towering or gigantic are stronger words than tall or large. Search for an answer choice that is opposite and also has the same strength. If the main word is weak, look for opposites that are also weak. If the main word is strong, look for opposites that are also strong.

Type and Topic

Another key is what type of word is the main word. If the main word is an adjective describing height, then look for the answer to be an adjective describing height as well. Match both the type and topic of the main word. The type refers the parts of speech, whether the word is an adjective, adverb, or verb. The topic refers to what the definition of the word includes, such as sizes or fashion styles.

Form a Sentence

Many words seem more natural in a sentence. *Specious* reasoning, *irresistible* force, and *uncanny* resemblance are just a few of the word combinations that usually go together. When faced with an uncommon word that you barely understand (and on the GRE there will be many), try to put the word in a sentence that makes sense. It will help you to understand the word's meaning and make it easier to determine its opposite. Once you have a good descriptive sentence that utilizes the main word properly, plug in the answer

choices and see if it changes the meaning of the sentence to the opposite of what it was before.

Analogies

An analogy is a way of noticing the similarities in the relationships between two pairs of words. Most students will be familiar with the format that the GRE uses for analogies. The given analogy will be placed in uppercase, while the answer choices will consist of five analogies in lower case. The two words in each part of an analogy are separated by a colon, and the first set is separated from the second set by two colons. For example, a simple analogy might read, NIGHT : MOON :: day : sun. Expressed verbally, this analogy would be, "night is to moon as day is to sun." In other words, the relationship of night to the moon is the same as the relationship of day to the sun. The relationships between the terms in an analogy can take on many different aspects. Moreover, the terms in the analogy on the GRE are likely to be much more complicated and subtle than in this example. Nevertheless, with the right combination of vocabulary preparation and basic strategy, you can prepare yourself for high achievement on the analogy portion of the exam.

Determine the Relationship

The makers of the GRE use these nine basic relationships in constructing their analogies:

1. Cause and effect: words that describe the causes and consequences of events; example: FIRE : SMOKE or DROP : FALL
2. Antonym: words that have opposite meanings;
example: PULCHRITUDE : UGLINESS
3. Synonym: words that have the same meaning;
example: PRUDENCE : FORESIGHT
4. Specific to general: words that describe small-scale and large-scale characteristics of another word, or that describe members of a group and the name of the group itself;
example: BEE : INSECT or NOTE : SCALE
5. Function: one word describes what the other word does;
example: BLENDER : PUREE
6. Part to whole: one word is a component or piece of the other word;

example: WHEEL : SPOKE
7. Position: one word describes the location or orientation of the other word; example: HAMMER : TOOLBOX or EAGLE : NEST
8. Greater to lesser: one word is either a magnification or diminution of the other; example: IRRITATED : ENRAGED or LARGE : GIGANTIC
9. Characteristic: one word names a salient feature of the other;
example: CHIRP : BIRD or WAVE : FLAG.

The analogies used on the GRE will usually fit into one of these categories. Indeed, analogies will fit into only one category, so it will help you to be familiar with them.

Don't focus on the meanings, but rather the relationship between the two words.
To understand the relationship, first create a sentence that links the two words and puts them into perspective. The sentence that you use to connect the words can be simple at first.
Example:
WOOD:FIRE::
Wood feeds a *fire*.

Then go through each answer choice and replace the words with the answer choices. If the question is easy, then that may be all that is necessary. If the question is hard, you might have to fine-tune your sentence.
Example:
WOOD:FIRE::
A.) farmer:cow
B.) gasoline:engine

Using the initial sentence, you would state "Farmer feeds a cow." This is correct, but then so is the next answer choice "Gasoline feeds an engine." So which is right? Modify the sentence to be more specific.

Example: "Wood feeds a fire and is consumed" or "Wood is burned in a fire"

This modified sentence makes answer choice A incorrect and answer choice B clearly correct, because while "Gasoline feeds an engine and is consumed" is correct, "farmer feeds a cow and is consumed" is definitely wrong.

If your initial sentence seems correct with more than one answer choice, then keep modifying it until only one answer choice makes sense.

By making up a short and specific sentence to express the relationship between the terms in the given analogy, you can help yourself determine which answer choice expresses the same relationship. Remember that your sentence can place the given terms in any order, but you must preserve that order when you apply the answer choices to the sentence. Try to make your sentence as specific as possible, and make sure that it describes the pertinent relationship between the terms. It should be possible from your sentence to identify which common relationship used by ETS is expressed in the analogy, and how the respective terms fit into that relationship. That is, in a relationship of part to whole, your sentence should indicate which term is the part and which is the whole; in a relationship of cause and effect, your sentence should indicate which term is the cause and which the effect.

Eliminate Similar Choices

If you don't know the word, don't worry. Look at the answer choices and just use them. Remember that four of the answer choices will always be wrong. If you can find a common relationship between any four answer choices, then you know they are wrong. Find the answer choice that does not have a common relationship to the other answer choices and it will be the correct answer.

Example:

TOUGH:RUGGED::

A.) soft:hard

B.) clear:foggy

C.) inhale:exhale

D.) throw:catch

E.) rigid:taut

In this example the first four choices are all opposites. Even if you don't know that taut means the same as rigid, you know it must be correct, because the other four all had the same relationship. They were all opposites, so they must all be wrong. The one that has a different relationship from the other four must be correct. So, don't worry if you don't know a word. Focus on the answer choices that you do understand and see if you can identify common relationships. Even identifying two word pairs with the same relationship (for example, two word pairs that are both opposites) will allow you to eliminate those two answer choices, for they are both wrong.

A simple way to remember this is that if you have two or more answer choices that have the exact same relationship, then they are all wrong.

Example:

Sun:Day

Moon:Night

Since the relationship in the above two answer choices is the same, they both must be wrong, because they both can't have the same relationship as the analogy used for the question.

Be sure to read all of the choices. You may find an answer choice that seems right at first, but continue reading and you may find a better choice.

Occasionally, you will come across a given analogy or answer choice that contains terms with which you are not familiar. When this occurs, do not panic. If the unknown term is in the given analogy, do your best to determine what kind of relationship is being expressed in the analogy. Often times, your knowledge of one of the terms will be enough to indicate the probable relationship between it and the other. Try to come up with a loose sentence that you can apply to the answer choices. This should help you to eliminate at least a few of

the possible answers and improve your odds of guessing the right answer. If you do not know one of the terms in the answer choices, do not eliminate it. Instead, work through all of the other answer choices first. It may be that you will find one of the other answer choices to be undoubtedly correct, or at the very least you may be able to improve your odds by eliminating some of the other possibilities. Difficult words are usually synonyms or antonyms (opposites). Whenever you have extremely difficult words that you don't understand, look at the answer choices. Try and identify whether two or more of the answer choices are either synonyms or antonyms. Remember that if you can find two word pairs that have the same relationship (for example, they are both synonyms) then you can eliminate them both.

The analogy questions on the GRE are generally considered to be the most difficult portion of the Verbal Ability section. Some of the relationships between terms will seem esoteric, overly subtle, or downright mystifying. Try not to be overwhelmed by the analogies: work through each given analogy term by term, develop a sentence to express the relationship, and place the answer choices in the sentence. By working deliberately, and by using these strategies, you can vastly improve your performance on the analogy section.

Word Types

In addressing the analogy questions on the GRE, perhaps the most important thing you can do is to work incrementally. This means considering the given analogy in a systematic manner, and then carefully selecting the appropriate answer. As with the antonym questions, the first step in considering the given analogy is to identify the part of speech. The two terms in the given analogy may be either the same or different parts of speech. Once you have identified the parts of speech, you should be able to eliminate one or two of the answer choices. As with the analogies, be wary of those words that can be used in different ways.

The correct answer choice will contain words that are the same type of word as those in the word pair.

Example:
ARTIST:PAINTBRUSH

In this example, an artist is a person, while a paintbrush is an object. The correct answer will have one word that describes a person and another word that describes an object.
Example:
GARDENER:HEDGE
A.) wind:rock
B.) woodcarver:stick

In this example, you could create the sentence, "Gardener cuts away at hedges." Both answer choices seem correct with this sentence, "Wind cuts away at rocks" through the process of erosion, and "woodcarver cuts away at sticks". The difference is that a gardener is a person, as is a woodcarver, while the wind is a thing, which makes answer choice B correct.

Sentence Completion

The Verbal Ability section of the GRE will contain approximately six sentence completion (or fill-in-the-blank) exercises. These are sentences containing one or two blanks, which you will have to fill in from a list of five possible choices. The format of these questions will be familiar to you from countless other tests, so it is extremely unlikely that you will be confused. For most students, the only obstacle to success on sentence completion questions is an insufficient vocabulary. By studying lists of common GRE vocabulary words, you can vastly improve your score on these exercises. In addition, there is a basic approach you can learn to improve your chances on those questions you do not fully understand.

Read each sentence, inserting the answer choices in the blanks. Don't stop at the first answer choice if you think it is right, but read them all. What may seem like the best choice, at first, may not be after you have had time to read all of the choices.

Adjectives Give it Away

Words mean things and are added to the sentence for a reason. Adjectives in particular may be the clue to determining which answer choice is correct.

Example:

The brilliant scientist made several _____ discoveries.

A.) dull

B.) dazzling

Look at the adjectives first to help determine what makes sense. A "brilliant" or smart scientist would make dazzling, rather than dull discoveries. Without that simple adjective, no answer choice is clear.

Use Logic

Ask yourself questions about each answer choice to see if they are logical.

Example:

The deep pounding resonance of the drums could be _____ far off in the distance.

A.) seen

B.) heard

Would resonating poundings be "seen"? or Would resonating pounding be "heard"?

Positive or Negative

To begin with, read the sentence carefully. Before you look at the answer choices, see if you can predict the word that will best complete the sentence. This is a good exercise for a couple of reasons. For one, you may occasionally find that your prediction is one of the answer choices, so you can be almost positive that this answer choice is correct. At the very least, your prediction will give you some information about the correct answer choice. By considering the reasons for your prediction, you can give yourself some hints for discovering the right answer. For instance, imagine you are confronted with the following sentence: "After Dale lost all of his savings at blackjack, his wife lambasted him for his _____." There are a number of words that could adequately complete this sentence: irresponsibility, impecuniousness, prodigality, and stupidity all make sense. Perhaps none

of these words are among the answer choices, but we can still make a few helpful observations. We can note, for instance, that all of these words are negative, and that several of them refer to poor care of money. Looking back at the sentence, we can affirm that the correct answer will be a word that describes someone who is foolish with money. This should give us an advantage when we begin considering the answer choices.

The primary distinction you will be making when you make your predictions will be between positive and negative words. Though it may be impossible for you to remember the precise definition of a word, you can often remember whether that word has a good or bad connotation. In fact, this is a good distinction for you to remember as you are learning new vocabulary words: if you cannot always remember exactly what a word means, see if you can at least remember whether it is positive or negative. In most contexts, you should be able to determine whether a positive or negative word is required.

One of the easiest ways to remember whether a given word is positive or negative is to memorize some of the most common prefixes (suffixes generally indicate part of speech rather than meaning). Before you sit down for your examination, you should know by heart the following prefixes:

- a-/an-: without, not; e.g. anemic, amoral
- ab-: away (from); e.g. abdicate, abrogate
- ad-: to, towards; e.g. advance, administer
- ante-: before (in chronology); e.g. antecedent, antebellum
- anti-: against; e.g. antihero, antibiotic
- com-: with; e.g. companion, committee
- contra-/counter-: against, opposed to; e.g. contraceptive, counterproductive
- de-: down, away (from); e.g. decline, denigrate
- ex-: out (of), upward; e.g. exile, exclude
- extra-: beyond, outside; e.g. extraordinary, extrapolate
- hyper-: extra, more than normal; e.g. hyperactive, hyperspeed
- hypo-: under, less than normal; e.g. hypodermic, hypothermia

- in-/im-: without, not; e.g. inaccessible, inappropriate, inconclusive
- infra-: below; e.g. infrastructure, infraction
- inter-: among, between; e.g. interaction, internecine
- intra-: inside, within; e.g. intravenous, intramural
- non-: lack of, negation of, absence of; e.g. nonjudgmental, nonaggression
- ob-: against, blocking, hiding; e.g. obstructive, obstinate
- post-: after, following; e.g. posterior, postdate
- pro-: in support of, towards, forward; e.g. provide, propel
- re-: again, back; e.g. rewind, restore
- sub-: lower, beneath, below; e.g. subdue, subjugate
- trans-: across, into a different condition; e.g. transition, translate
- ultra-: beyond, an extreme version of; e.g. ultrasound, ultramicroscopic

Learning these common prefixes should help you decipher the meanings of many of the obscure words that appear on the GRE.

Multiple Blanks Are an Opportunity

The sentence completion exercises containing two blanks, present a special challenge. They require you not only to consider the compatibility of each answer choice to the context of the sentence, but to consider the relationship between the two words in each answer choice. When you are tackling one of these questions, you need to be particularly attuned to words and phrases that reverse meaning, like although, in contrast, and while. If you skip over one of these words, you can totally miss the point of the sentence. For example, consider the following sentence: "Chad worked _____, putting in long hours at the library, while Dina remained _____." Clearly Chad was a hard worker, since we are told that he stayed at the library for a long time. However, the only real information we are provided about Dina's behavior is implicit in the word while, which indicates that she was not like Chad. In other words, the word while suggests that Dina was not a hard worker. If you were to go through this sentence and not take account of this inverting word, you would be lost.

A similar ploy of the GRE composers of the two-blank sentence completion questions is to make one word correct and the other incorrect. In many cases, the authors will try to catch students racing through the exam by making the first answer choice appropriate for the first blank but wildly inappropriate for the second. For this reason it is imperative that you carefully read each sentence in its entirety before you begin looking at the answer choices.

Transitional Words

Watch out for key transitional words! This can include however, but, yet, although, so, because, etc. These may change the meaning of a sentence and the context of the missing word.

Example:

He is an excellent marksman, but surprisingly, he _____ comes home empty handed from a hunting trip.

A.) often

B.) never

C.) rarely

A good shot or marksman would be expected to be a successful hunter. Watch out though for the transition phrase "but surprisingly". It indicates the opposite of what you would expect, which means this particular marksman must not be a successful hunter. A successful hunter would either never or rarely come home empty handed from a hunt, but an unsuccessful hunter would "often" come home empty handed, making A the correct answer.

The Trap of Familiarity

Don't just choose a word because you recognize it. On difficult questions, you may only recognize one or two words. GRE doesn't put "make-believe" words on the test, so don't think that just because you only recognize one word means that word must be correct. If you don't recognize four words, then focus on the one that you do recognize. Is it correct?

Try your best to determine if it fits the sentence. If it does, that is great, but if it doesn't, eliminate it. Each word you eliminate increases your chances of getting the question correct.

The sentence completion questions are not intended to be the most challenging part of the GRE. Primarily, they are meant to test your vocabulary and to ensure that you can read carefully and thoughtfully. If you study your vocabulary lists diligently, there is no reason why these questions should present much difficulty. Even though it is possible that you will have to confront some unfamiliar words on this section of the test, you can still give yourself every advantage by confronting the problems in a structured, orderly manner. Specifically, you should begin by predicting an appropriate answer, and then using your knowledge of prefixes, suffixes, and context clues to guide your decision.

Reading Comprehension

The reading comprehension questions are the component of the Verbal Ability section that requires the most work. Each exam will contain approximately eight questions on two different passages. One of the passages will be long (between 50 and 65 lines) and the other will be short (between 18 and 25 lines). These passages will be in two of the following content areas: biology, physical science, social science, and the humanities. If you are taking the exam on a computer, you will be able to scroll back through the passage as much as you like. Also, all of the information required to answer the questions will be found in the passages: you will not need any outside information or experience. The reading comprehension questions on the GRE are of four basic types: main idea, detail, tone, and extending the author's reasoning, each of which calls for a slightly different approach. But before we take a look at the types of questions found in the reading comprehension sections, let us discuss how you can prepare for the three types of passages.

The biological and physical science passages are probably the most daunting for the majority of test-takers. Those students whose undergraduate careers did not include a

great deal of hard science may be taken aback by the rigid structure and torrent of facts in a science passage. Just remember that the questions on the GRE will not require any outside knowledge. It is also good to keep in mind that you do not need to memorize the information in the passage, since you will be able to refer to the text as much as you like. The science passages on the GRE will be either specific or general. A specific science passage describes a particular study or set of research data, usually without mentioning any ideas or ramifications outside the boundaries of the study. A specific passage will be akin to an article in a scientific journal. A general science passage, on the other hand, will be more like an article in a scientific magazine. That is, it will describe a science-related topic in a manner that is more accessible to a general audience. It is typical for a general science article to spend some time discussing the possible consequences of research, or on general theories that have arisen out of recent studies. Regardless of whether the science passage on your GRE is specific or general, try to pay attention to the main themes of the passage without getting mired in excessive details. The questions following a science passage will most likely pertain to the elements of the passage most obvious to a reader with a non-science background.

The second content area from which reading comprehension passages may be drawn is the social sciences. The social sciences include sociology, psychology, history, business, and anthropology, among others. By and large, the social science passages will break down in a manner similar to other science passages, being either specific or general. One difference is that the authors of the GRE will expect you to be a little bit better at extrapolating and making inferences based on the information in a social science passage. The authors assume that your common sense will enable you to evaluate a social science passage with more insight. For this reason, you are more likely on a social science passage to be asked to extend the reasoning of the passage or to describe the attitude of the author.

The third and final content area from which reading comprehension questions are drawn is the humanities. The humanities are any of the so-called arts, including drama, literature, philosophy, music, and painting. You are unlikely to encounter primary sources on the

GRE, however. Instead, reading passages from the humanities will most likely be works of criticism in which the author reflects on a particular work or artist. (Remember that in the humanities the word criticism does not necessarily imply a negative opinion: some criticism heaps praise on its subject.) These passages should be easy to read and understand, and the questions that follow are likely to require inferences and some independent thought. Also, because these passages are not meant to be objective, you are more likely to be asked to evaluate the attitude and perspective of the author.

Main Idea Questions

The first and most basic kind of reading comprehension question is the one that asks you to define the main idea of the passage. This question may arrive in any of a few different forms. The question may ask you for the "the best summary," the "salient point," or the "overarching theme" of the passage. There is no need to be baffled by this language: this is a main idea question. As you no doubt have learned by now, the main idea of a passage is most likely to appear in either the first or the last sentence. As you are reading a passage for the first time, pay special attention to the beginning and end. Whether the main idea is offered first or last will depend on the type of passage. Expository passages tend to give a main idea first and then spend the rest of the sentences defending it, while critical or argumentative essays will often begin with a set of loose facts and end with a summarizing conclusion. In any case, be prepared to refer back to the text in search of the main idea.

On occasion, the authors of the GRE will try to fool you by asking you to provide the main idea of a specific part of the passage rather than of the passage as a whole. Similarly, they may try to confuse you with answer choices that are true without being the main idea of the passage. For this reason, it is imperative that you read the question carefully and to not assume that the first or last sentence of the paragraph is the main idea. The main idea is not just any true statement contained within the passage: it is the idea that most effectively summarizes the entire passage.

Specific Detail Questions

It is quite likely that a few of the questions will ask you to recall specific details from the passage. This would appear to be the easiest kind of question to answer, but many students go astray by relying on memory instead of scrolling back up to find the pertinent details in the passage. As mentioned above, both the computer and paper versions of the GRE allow you to refer to the text at will. Take advantage of this freedom. Also, remember that specific questions are likely to have specific answers, just as general questions are likely to have general answers. In other words, if the question asks for the identity of a concept, the answer will probably not be a piece of specific data.

Author's Feeling Questions

A more subtle form of questioning requires you to speculate on the author's attitude. As with the main idea question, this kind of question can take a number of different forms. It may ask you to describe the "tone," "opinion," "feeling," or "mood" of the author or passage. All of these questions are essentially asking you to assess how the author feels about his or her topic. In order to answer such a question, you will have to pay attention to the specific language used by the author and the point of view that the language conveys. For instance, if the author is describing a small person, he or she would create a sharply different tone by using the word puny than would be created by using the word petite. Puny suggests a shriveled, scrawny individual, while petite conjures daintiness and delicacy. It may take a little bit of practice before you habitually notice these shades of meaning, but you should try to be conscious of the ways in which language can be used to subtly indicate attitude.

When dealing with questions of tone, you should also consider the genre of the passage. For instance, specific science passages, whether in biology, physical sciences, or the social sciences, are almost always written in an objective, nonjudgmental tone. These passages will rarely demonstrate a strong opinion, so you should avoid any answer choices that suggest a positive or negative view on the part of the author. Critical essays in the humanities, on the other hand, will often be quite opinionated. Even general passages on the sciences may evince a clear positive or negative disposition. However, ETS generally

avoids using passages that are violently opinionated or controversial. Any answer choices that suggest the author holds an opinion which could be considered radical or offensive are most likely incorrect.

Author's Reasoning Questions

The final category of questioning which you may encounter on the GRE is one that asks you to extend the author's reasoning. Put another way, these questions require you to consider the information provided in the passage and then use this information to consider a problem not mentioned in the passage. For instance, a specific science passage about the migratory patterns of a certain predatory bird might ask you to consider the effects of these migrations on the populations of rodents in various regions. Even if the passage has not mentioned rodents up to this point, you should be able to guess that more rodents will be killed when the predatory birds are in the area. The most common problem students have with questions asking them to extend the reasoning of the passage is that they attempt to find the answer explicitly in the passage. Remember that even though all of the information needed to answer every question can be found in the text, some questions will require you to do some independent thinking.

Skimming

Your first task when you begin reading is to answer the question "What is the topic of the selection?" This can best be answered by quickly skimming the passage for the general idea, stopping to read only the first sentence of each paragraph. A paragraph's first is usually the main topic sentence, and it gives you a summary of the content of the paragraph.

Once you've skimmed the passage, stopping to read only the first sentences, you will have a general idea about what it is about, as well as what is the expected topic in each paragraph.

Each question will contain clues as to where to find the answer in the passage. Do not just randomly search through the passage for the correct answer to each question. Search

scientifically. Find key word(s) or ideas in the question that are going to either contain or be near the correct answer. These are typically nouns, verbs, numbers, or phrases in the question that will probably be duplicated in the passage. Once you have identified those key word(s) or idea, skim the passage quickly to find where those key word(s) or idea appears. The correct answer choice will be nearby.

Example: What caused Martin to suddenly return to Paris?

The key word is Paris. Skim the passage quickly to find where this word appears. The answer will be close by that word.

However, sometimes key words in the question are not repeated in the passage. In those cases, search for the general idea of the question.

Example: Which of the following was the psychological impact of the author's childhood upon the remainder of his life?

Key words are "childhood" or "psychology". While searching for those words, be alert for other words or phrases that have similar meaning, such as "emotional effect" or "mentally" which could be used in the passage, rather than the exact word "psychology".

Numbers or years can be particularly good key words to skim for, as they stand out from the rest of the text.

Example: Which of the following best describes the influence of Monet's work in the 20th century?

20th contains numbers and will easily stand out from the rest of the text. Use 20th as the key word to skim for in the passage.

Other good key word(s) may be in quotation marks. These identify a word or phrase that is copied directly from the passage. In those cases, the word(s) in quotation marks are exactly duplicated in the passage.

Example: In her college years, what was meant by Margaret's "drive for excellence"?

"Drive for excellence" is a direct quote from the passage and should be easy to find.

Beware of Directly Quoted Answers

Once you've quickly found the correct section of the passage to find the answer, focus upon the answer choices. Sometimes a choice will repeat word for word a portion of the passage near the answer. However, beware of such duplication – it may be a trap! More than likely, the correct choice will paraphrase or summarize the related portion of the passage, rather than being exactly the same wording.

Truth Does Not Equal Correctness

For the answers that you think are correct, read them carefully and make sure that they answer the question. An answer can be factually correct, but it MUST answer the question asked. Additionally, two answers can both be seemingly correct, so be sure to read all of the answer choices, and make sure that you get the one that BEST answers the question.

When There's No Key Word

Some questions will not have a key word.

Example: Which of the following would the author of this passage likely agree with?

In these cases, look for key words in the answer choices. Then skim the passage to find where the answer choice occurs. By skimming to find where to look, you can minimize the time required.

Sometimes it may be difficult to identify a good key word in the question to skim for in the passage. In those cases, look for a key word in one of the answer choices to skim for. Often the answer choices can all be found in the same paragraph, which can quickly narrow your search.

Paragraph Focus

Focus upon the first sentence of each paragraph, which is the most important. The main topic of the paragraph is usually there.

Once you've read the first sentence in the paragraph, you have a general idea about what each paragraph will be about. As you read the questions, try to determine which paragraph will have the answer. Paragraphs have a concise topic. The answer should either obviously be there or obviously not. It will save time if you can jump straight to the paragraph, so try to remember what you learned from the first sentences.

Example: The first paragraph is about poets; the second is about poetry. If a question asks about poetry, where will the answer be? The second paragraph.

The main idea of a passage is typically spread across all or most of its paragraphs. Whereas the main idea of a paragraph may be completely different than the main idea of the very next paragraph, a main idea for a passage affects all of the paragraphs in one form or another.

Example: What is the main idea of the passage?

For each answer choice, try to see how many paragraphs are related. It can help to count how many sentences are affected by each choice, but it is best to see how many paragraphs are affected by the choice. Typically the answer choices will include incorrect choices that are main ideas of individual paragraphs, but not the entire passage. That is why it is crucial to choose ideas that are supported by the most paragraphs possible.

Eliminate Choices

Some choices can quickly be eliminated. "Andy Warhol lived there." Is Andy Warhol even mentioned in the article? If not, quickly eliminate it.

When trying to answer a question such as "the passage indicates all of the following EXCEPT" quickly skim the paragraph searching for references to each choice. If the reference exists, scratch it off as a choice. Similar choices may be crossed off simultaneously if they are close enough.

Watch for answers that are similarly worded. Since only one answer can be correct, if there are two answers that appear to mean the same thing, they must BOTH be incorrect, and can be eliminated.

Example Answer Choices:
A.) changing values and attitudes
B.) a large population of mobile or uprooted people

These answer choices are similar; they both describe a fluid culture. Because of their similarity, they can be linked together. Since the answer can have only one choice, they can also be eliminated together.

Contextual Clues

Look for contextual clues. An answer can be right but not correct. The contextual clues will help you find the answer that is most right and is correct. Understand the context in which a phrase is stated.

When asked for the implied meaning of a statement made in the passage, immediately go find the statement and read the context. Also, look for an answer choice that has a similar phrase to the statement in question.

Example: In the passage, what is implied by the phrase "Churches have become more or less part of the furniture"?

Find an answer choice that is similar or describes the phrase "part of the furniture" as that is the key phrase in the question. "Part of the furniture" is a saying that means something is fixed, immovable, or set in their ways. Those are all similar ways of saying "part of the furniture." As such, the correct answer choice will probably include a similar rewording of the expression.

Example: Why was John described as "morally desperate".

The answer will probably have some sort of definition of morals in it. "Morals" refers to a code of right and wrong behavior, so the correct answer choice will likely have words that mean something like that.

Fact/Opinion

Remember that answer choices that are facts will typically have no ambiguous words. For example, how long is a long time? What defines an ordinary person? These ambiguous words of "long" and "ordinary" should not be in a factual statement. However, if all of the choices have ambiguous words, go to the context of the passage. Often a factual statement may be set out as a research finding.

Example: "The scientist found that the eye reacts quickly to change in light."

Opinions may be set out in the context of words like thought, believed, understood, or wished.

Example: "He thought the Yankees should win the World Series."

Final Warnings

Hedge Phrases Revisited

Once again, watch out for critical "hedge" phrases, such as likely, may, can, will often, sometimes, etc, often, almost, mostly, usually, generally, rarely, sometimes. Question writers insert these hedge phrases, to cover every possibility. Often an answer will be wrong simply because it leaves no room for exception.

Example: Animals live longer in cold places than animals in warm places.

This answer choice is wrong, because there are exceptions in which certain warm climate animals live longer. This answer choice leaves no possibility of exception. It states that every animal species in cold places live longer than animal species in warm places. Correct answer choices will typically have a key hedge word to leave room for exceptions.

Example: In severe cold, a polar bear cub is likely to survive longer than an adult polar bear.

This answer choice is correct, because not only does the passage imply that younger animals survive better in the cold, it also allows for exceptions to exist. The use of the word "likely" leaves room for cases in which a polar bear cub might not survive longer than the adult polar bear.

Word Usage Questions

When asked how a word is used in the passage, don't use your existing knowledge of the word. The question is being asked precisely because there is some strange or unusual usage of the word in the passage. Go to the passage and use contextual clues to determine the answer. Don't simply use the popular definition you already know.

Switchback Words

Stay alert for "switchbacks". These are the words and phrases frequently used to alert you to shifts in thought. The most common switchback word is "but". Others include although,

however, nevertheless, on the other hand, even though, while, in spite of, despite, regardless of.

Avoid "Fact Traps"

Once you know which paragraph the answer will be in, focus on that paragraph. However, don't get distracted by a choice that is factually true about the paragraph. Your search is for the answer that answers the question, which may be about a tiny aspect in the paragraph. Stay focused and don't fall for an answer that describes the larger picture of the paragraph. Always go back to the question and make sure you're choosing an answer that actually answers the question and is not just a true statement.

Quantitative Test

The quantitative ability (math) section of the GRE seems to generate the most anxiety among prospective test-takers. For individuals hoping to enter graduate programs in sociology or history, it may seem unfair to be tested on skill with numbers. Unfortunately, the quantitative ability section of the GRE is here to stay. The good news is that most experts consider the math included on the GRE to be significantly less difficult than the math on the SAT. Indeed, ETS has developed this portion of the exam to be at approximately a ninth-grade level. Therefore, if you didn't take much math as an undergraduate, do not worry. Studying for the quantitative ability section of the GRE is primarily a matter of learning the best strategies for the two types of questions and then brushing up on your junior high and high school math.

The Quantitative portion of the GRE consists of a 45 minute section with 28 questions.

There are three types of questions in the GRE Quantitative Test.

1.) Quantitative Comparison
2.) Problem Solving - Math Ability
3.) Data Interpretation

A detailed knowledge of algebra and trigonometry is NOT necessary to answer to succeed on GRE Quantitative problems. Don't be intimidated by the questions presented on the Quantitative Test. They do not require highly advanced math knowledge, but only the ability to recognize basic problems types and apply simple formulas and methods to solving them.

Although calculators are not allowed on the GRE, scratch paper and pencils will be made available. You should use this scratch paper as much as you can. Do not try to solve complicated problems in your head: put them down on paper so that you can get a visual sense and leave your mind free to work. The importance of scratch paper is true for the quantitative comparison questions as well as the problem-solving questions. On the

problem-solving questions, you should use the paper to solve each problem both forward and backward. For instance, on a question that asks you to solve for a specific variable, you should solve for the variable, then plug that variable back into the original equation and make sure that it works. After you have reviewed basic arithmetic and algebra, you should have plenty of time to work out problems forward and backward on your scratch paper. By double checking your work in this manner, you can prevent careless mistakes from lowering your score.

Our goal is to show you the simple formulas and methods to solving these problems, so that while you will not gain a mastery of math from this guide, you will learn the methods necessary to succeed on the GRE. This guide attacks problems that are simple in nature but may have been glossed over during your education.

Quantitative Comparison Questions

For these questions, you will have to determine a relationship between two quantities, A and B. You will be asked whether A is greater, B is greater, A is equal to B, or the relationship cannot be determined.

First, understand the directions, so that you don't have to waste precious time referring back to them. For quantitative comparison questions, the possible answers are:

A.) if the quantity in Column A is greater
B.) if the quantity in Column B is greater
C.) if the two quantities are equal
D.) if the relationship can't be determined based upon the information provided

Many first-time test-takers become overwhelmed by finding the quantitative comparison questions unnecessarily complex. There is no reason, however, to fear these questions any more than problem-solving questions. The operations which you will be required to perform on quantitative comparison questions are no different from those found in the problem-solving questions. The best way to demystify quantitative comparison questions

is to work through them in an orderly and deliberate manner. Specifically, you should always solve first for the value in Column A, solve next for the value in Column B, and then compare the two. Do not attempt to compare the two columns until you have either converted them into terms which can be compared, or have determined that it is impossible to make the comparison.

Variables

Many questions will involve variables (where a letter such as "x" is used to represent any number). Try to solve these problems by plugging in a number for the variable and solving for an answer for both A and B. It is best to use different numbers to make sure of your answer. Numbers such as 100, 1, 0, -1, and –100 allow you to check a wide range of possible answers and will keep you from being thrown off by tricky questions. Now you aren't restricted to only using numbers like 100 or 1. Any number is valid. These numbers are only suggested because they are easy to multiply and divide by.

In some cases it will be necessary to make a couple of different substitutions. For example, the question might ask you to compare Column A, 3x, to Column B, 4x – 3. Without being given any way to find the value of x, this problem would seem to be insoluble. However, let us imagine that the value of x is 2. If this is the case, then the value of A will be 6 and the value of B will be 5. However, in a problem such as this, we cannot settle for a single hypothetical value of x. Instead, we need to try another value to see if the answer stays the same. So, let us try 6. This would give us respective values of 18 and 21. It seems that the value in Column A can be either larger or smaller than the value in Column B, depending on the value of x. Since we have no means of determining exactly what the value of x is, however, we must select answer choice D. As a general rule, whenever you are required to compare 2 expressions including the same variable, you should solve the problem with a couple of different hypothetical values for the variable. It is usually a good idea to solve the problem using one low value and one high value for the variable.

Extra Information

Watch out for extra information! Many questions will have additional information given in notes above the problem. This additional information is critical to solving the problem. For example, it may be a comment such as "x > 0". This means that when you are plugging in a number (such as 100, 1, 0, -1, or –100), only numbers greater than zero (1 or 100) can be used. Make sure that you read all of the notes and understand what they mean.

Example:

A: x + 2x B: x + 2

Plugging in a 1 for "x" gives for side A (1 + 2*1 = 1 + 2 = 3) and for side B (1 + 2 = 3). It appears they are equal, but try plugging in a 0. This gives for side A (0 + 2*0 = 0 + 0 = 0) and for side B (0 + 2 = 2). In this case, side B is greater. Since x was not specified to be greater than 0, than the relationship between side A and B cannot be determined.

Estimations

Since quantitative comparison questions are asking you to assess the relationship between two values, they do not always require exact answers. In fact, you may be able to estimate your way to the answer on many of these questions. For example, pretend a question asks you to compare 7/15 and 19/36. Rather than trying to find a common denominator between these two large fractions, you might simply note that 7/15 is less than ½, while 19/36 is greater than ½. Since this is the case, we can assert with confidence that 19/36 is greater, without having to go to the trouble of determining exactly how much greater.

Draw the Shape

Other problems may describe a geometric shape, such as a triangle or circle, but may not include a drawing of the shape. GRE is testing whether you can read a description and make appropriate inferences by visualizing the object and related information. There is a simple way to overcome this obstacle. DRAW THE SHAPE! A good drawing (or even a bad drawing) is much easier to understand and interpret than a brief description.

Make a quick drawing or sketch of the shape described. Include any angles or lengths provided in the description. Once you can see the shape, you have already partially solved the problem and will be able to determine the right answer.

Example:

A. The area of a circle with a radius of 2.
B. The area of a square with a side of length 2.

Quickly draw a circle and label it with a radius of 2. Then right next to the circle, draw a square that has a side of the same length as the circle's radius. Without knowing either of the formulas for calculating area, you can easily see that a circle with a radius of 2 is much bigger than a square with a side of length 2, once you have drawn the two shapes out.

Be careful though. Shapes can be drawn many different ways.

Example:

A. The area of a circle with a radius of 2.
B. The area of a rectangle with a side of length 2.

This is very similar, but there is a crucial difference. A square has four sides of the same length. A rectangle can have two sides with completely different lengths. If a rectangle has a long side that is length 2, then its area is smaller than a circle. But what if a rectangle has another side that has a length of 100? Suddenly that tiny rectangle becomes a huge rectangle and its area is larger. Therefore the answer cannot be determined based upon the information provided. So remember that when shapes are loosely defined, there is flexibility in how they are drawn. In order to be sure of your answer, see if the shape can be drawn differently, just as you should try different numbers to solve for a variable.

Work Efficiently

In problems involving shapes, it is not always necessary to compute the answer. If your drawings have covered every possibility, the answer will often be clear without calculation. In the example above, once the circle and square are drawn, it is not necessary to calculate that the area of a circle = $Pi*r^2 = 3.14*(2)^2 = 12.6$ and area of a square = $s^2 = 2^2 = 4$, in order

to determine the answer is A: The quantity in column A is obviously greater from the drawing.

A Final Warning

A final word to the wise regarding quantitative comparison questions: when the two columns contain only numbers (that is, when they do not include any variables), the answer to the question cannot be D. The two values may be equal or unequal, but it will always be possible to determine their relative values; you will never be able to say that there is not enough information to determine the relationship.

Problem Solving - Math Ability

Solving for Variables

Variables are letters that represent an unknown number. You must solve what that number is in single variable problems. The main thing to remember is that you can do anything to one side of an equation as long as you do it to the other.

Example: Solve for x in the equation $2x + 3 = 5$.

Answer: First you want to get the "2x" isolated by itself on one side. To do that, first get rid of the 3. Subtract 3 from both sides of the equation $2x + 3 - 3 = 5 - 3$ or $2x = 2$. Now since the x is being multiplied by the 2 in "2x", you must divide by 2 to get rid of it. So, divide both sides by 2, which gives $2x / 2 = 2 / 2$ or $x = 1$.

Integers

Quite a few of the questions on the GRE will require you to understand some of the basic properties of numbers, specifically integers. The set of numbers known as integers is composed of all the so-called counting numbers, both negative and positive, and including zero. Expressed as a mathematical set, integers are {..., -3, -2, -1, 0, 1, 2, 3,...}. Fractions and decimals are not integers. Any integer that is a multiple of two is called an even integer; all other integers are considered to be odd. Zero is considered to be an even integer. Zero has some special properties: any number multiplied by zero will yield a product of zero, and it

is not possible to divide a number by zero. Any groups of integers that are arranged in order from least to greatest, and without any gaps, are referred to as consecutive integers.

Prime and Composite Numbers

Any number that can only be divided evenly by itself or one is a prime number. For example, three is a prime number because it can only be divided by three and one. Four is not a prime number because it can be divided by two as well as by four and one. All numbers that are not prime numbers are referred to as composite numbers. Prime numbers are always positive, whole numbers, and almost always odd (2 is the only even prime number).

Factors and Multiples

For any integer, all of the numbers that can be divided into that integer are known as its factors. Prime numbers will only have two factors: themselves and one. Composite numbers will have at least three factors: themselves, one, and some other number. The number 8, for example, has four factors: 8, 4, 2, and 1.

The multiples of an integer are all of the values produced when the integer is multiplied by another integer. The multiples of 3 are 3, 6, 9, 12, and so on. The multiples of 4 are 4, 8, 12, 16, 20, and so on.

Associative and Distributive Properties

There are a few basic arithmetic properties which, although they are unlikely to be specifically mentioned on the GRE, may help you to figure out some other problems. The associative property of addition asserts that the order of the terms in an addition problem does not matter; therefore, the various terms can be grouped and organized in any way without affecting the total. As an example, $(2 + 5) + 6 = 13$, and $2 + (5 + 6) = 13$. Also, $2 + 6 + 5$, and $5 + 6 + 2$, both equal 13. As long as the terms in an addition problem do not change, the sum will not change either.

In a similar vein, the associative property of multiplication asserts that the grouping of the terms in a multiplication problem will not affect the product. So, for example, 5 (2 x 3) = 30, 3 (2 x 5) = 30, 3 x 2 x 5 = 30, 5 x 2 x 3 = 30, and so on.

The distributive law is only slightly more complicated. It states that any number multiplied by a set of values within parentheses is multiplied by every value within the parentheses. To illustrate, 3 (5 + 4) = 3(5) + 3(4). Occasionally, the GRE will ask you to transform a problem in the opposite way, as follows: 3(17) + 3 (14) = 3 (17 + 14). The problem may even be written in a slightly more confusing manner, such as: 5(12) – 83(5) = 5 (12 – 83).

Positive/Negative Numbers

Multiplication/Division

A negative multiplied or divided by a negative = a positive number.

Example: -3 * -4 = 12; -6 / -3 = 2

A negative multiplied by a positive = a negative number.

Example: -3 * 4 = -12; -6 / 3 = -2

Addition/Subtraction

Treat a negative sign just like a subtraction sign.

Example: 3 + -2 = 3 – 2 or 1

Remember that you can reverse the numbers while adding or subtracting.

Example: -4+2 = 2 + -4 = 2 – 4 = -2

A negative number subtracted from another number is the same as adding a positive number.

Example: 2 - -1 = 2 + 1 = 3

Beware of making a simple mistake!

Example: An outdoor thermometer drops from 42º to – 8º. By how many degrees has the outside air cooled?

Answer: A common mistake is to say 42º – 8º = 34º, but that is wrong. It is actually 42º - - 8º or 42º + 8º = 50º

Fractions

A fraction, for instance ½, consists of a numerator on top and a denominator on the bottom. Fractions are said to be equivalent when they can be reduced to be the same thing; for example, 5/10 is equivalent to ½, because it can be reduced to ½ by dividing both numerator and denominator by 5. Remember that when reducing a fraction you must divide numerator and denominator by the same number. In order to perform addition or subtraction operations with fractions, you must have a common denominator. Once you have a common denominator, you simply perform the operation with the numerators, leaving the denominators alone. To multiply two fractions, multiply the numerators together and then multiply the denominators together. To divide one fraction by another, invert the second fraction and then multiply first numerators and then denominators. A fraction in which the numerator is greater than the denominator is called an improper fraction. An expression consisting of a whole number and a fraction, for instance 5 ½, is called a mixed number.

Exponents

When a number is multiplied by itself several times, we use a form of notation called an exponent. For instance, the number 2^5 is expressed verbally as "two to the fifth power," and is equivalent to 2 x 2 x 2 x 2 x 2. When a number is raised to the second power (that is, when its exponent is 2), we say that the number is being "squared." When a number is raised to the third power (the exponent being 3), we say that the number is being "cubed." For any number, an exponent of zero makes the number equal to 1. When a number has a negative exponent, that number is equal to one over the number raised to the absolute value of the exponent; in other words, $x^{-1} = 1/x$, $x^{-2} = 1/x^2$, $x^{-3} = 1/x^3$…

When exponents are multiplied together, the exponents are added to get the final result.
Example: $x*x = x^2$, where x^1 is implied and 1 + 1 = 2.
When exponents in parentheses have an exponent, the exponents are multiplied to get the final result.
Example: $(x^3)^2 = x^6$, because 3*2 = 6.

Another way to think of this is that $(x^3)^2$ is the same as $(x^3)^* (x^3)$. Now you can use the multiplication rule given above and add the exponents, 3 + 3 = 6, so $(x^3)^2 = x^6$

Operations with Exponents

There are specific rules for multiplying and dividing numbers with exponents. When two terms with the same base are multiplied together, such as $2^3 \times 2^4$, the exponents are added together: $2^3 \times 2^4 = 2^7$. When two terms with different bases but the same exponent are multiplied together, as in $2^3 \times 3^3$, only the two bases are multiplied: $2^3 \times 3^3 = 6^3$. When the same base is given two exponents, as in $(3^2)^3$, the exponents are multiplied together: $(3^2)^3 = 3^6$. When two terms with the same base but different exponents are involved in a division problem, as in $3^4/3^2$, the exponent in the denominator is subtracted from the exponent in the numerator: $3^4/3^2 = 3^2$. Finally, when a fraction is given an exponent, as in $(3/4)^2$, the exponent applies to both the numerator and the denominator: $(3/4)^2 = 3^2/4^2$.

Square Roots

The number that when multiplied by itself would produce a given number is called the "square root" of that given number; for instance, 2 is the square root of 4, since 2 x 2 = 4. Note that -2 could also be considered a square root of 4, since -2 x -2 = 4. Every positive number will have two square roots, one of which will be negative. Also, since any positive or negative number multiplied by itself has a positive product, negative numbers do not have square roots. (This will probably not come up on the GRE, but the square root of 0 is 0, since $0^2 = 0$). The standard notation for square root is $\sqrt{2}$, which is expressed verbally as "the square root of 2." If a question is specifically asking for the negative square root of 2, this is expressed $-\sqrt{2}$. When two square roots are multiplied together, the numbers are simply multiplied and the resulting product remains as a square root: $\sqrt{2} \times \sqrt{3} = \sqrt{6}$. In like fashion, when one square root is divided by another, the terms inside the root symbol are divided and the square root sign is left intact: $\sqrt{8} / \sqrt{4} = \sqrt{2}$.

Decimal Exponents (aka Scientific Notation)

Decimals, like fractions, are a way of expressing values other than integers. Indeed, every fraction as an equivalent decimal; for instance, the fraction ¼ is equivalent to the decimal

0.25. When working with decimals, it is very important to understand how different operations affect the number of places to the right of the decimal point. When adding or subtracting decimals, the resulting sum or difference should have as many decimal places as the term in the operation with the most decimal places. In the problem 1.5 + 1.05, for example, the answer must have two numbers to the right of the decimal point. One way to simplify such problems is to add zeroes to the ends of those numbers with fewer decimal places; for instance, making our example 1.50 + 1.05. When two decimals are multiplied together, the resulting product will have the sum of the decimal places in the two terms. In other words, the product of 3.55 x 4.785 will have five places to the right of the decimal point, since the first term has 2 and the second term has 3. In order to divide decimals, the divisor must be converted into an integer by moving the decimal point to the right. In order to complete the problem 5.55 ÷ 2.8, we would need to shift the decimal point in both terms one place to the right, resulting in the problem 55.5 ÷ 28. The resulting quotient will have one place to the right of the decimal point.

Decimals often involve converting back and forth between scientific notation and decimal numbers (e.g. 0.02 is the same as 2×10^{-2}). There's an old "cheat" to this problem: if the number is less than 1, the number of digits behind the decimal point is the same as the exponent that 10 is raised to in scientific notation, except that the exponent is a negative number; if the number is greater than 1, the exponent of 10 is equal to the number of digits ahead of the decimal point minus 1.

Example: Convert 3000 to decimal notation.

Answer: 3×10^{3}, since 4 digits are ahead of the decimal, the number is greater than 1, and (4-1) = 3.

Example: Convert 0.05 to decimal notation.

Answer: 5×10^{-2}, since the five is two places behind the decimal (remember, the exponent is negative for numbers less than 1).

Any number raised to an exponent of zero is always 1. Also, unless you know what you're doing, always convert scientific notation to "regular" decimal numbers before doing arithmetic, and convert the answer back if necessary to answer the problem.

Area, Volume, and Surface Area

You can count on questions about area, volume, and surface area to be a significant part of the GRE. While commonly used formulas are provided in the actual GRE test book, it is best to become familiar with the formulas beforehand. A list is provided in the appendix for your convenience.

Percents

When a number is expressed as a percentage, this means that it is being expressed as a portion of 100. So, 25% is equivalent to 25 hundredths, or 0.25. Another way to express this would be 25/100 (as a fraction). If you prefer, you can always convert the percentages on the GRE into decimals or fractions. The most common kind of percentage problem you will see on the GRE is one that asks you to find a certain percentage of a given number. These problems are easily solved by multiplying the decimal equivalent of the percentage by the given number. As an example, imagine you are asked to calculate 25% of 40; you would simply multiply 0.25 by 40, resulting in an answer of 10 (remember the rules for multiplying decimals!). A similar kind of question will ask you to determine what percentage of a given number another number is. For instance, a question might ask what percentage of 40 the number 8 is. The way to solve this kind of problem is to set up a proportional equation such as 8/40 = x/100. This equation can be expressed as "8 is to 40 as x is to 100." Such an equation can then be solved by cross multiplying and solving for x, yielding an answer of 20%.

A percent can be converted to a decimal simply by dividing it by 100.
Example: What is 2% of 50?
Answer: 2% = 2/100 or .02, so .02 * 50 = 1

Order of Operations

There is a specific order in which the various components of an arithmetic problem must be performed. This system is known as the order of operations, and is as follows: parentheses, exponents, multiplication, division, addition, and subtraction. The order of operations is easy to follow if you just remember the mnemonic phrase, "Please excuse my

dear Aunt Sally." The first letters of the words in the sentence, "Please Excuse My Dear Aunt Sally," mirror those of the order of operations: Parentheses, Exponents, Multiplication, Division, Addition, and Subtraction. As an example, take a look at the following arithmetic expression: $3(4 + 3^2) - 2$. In order to derive the correct answer, you would need to begin by determining the value of the parentheses, first by calculating the exponent 3^2, and then by adding 4. Next, you would multiply by 3 (since multiplication preceded subtraction in the order of operations) and then you would subtract 2. The correct value of this expression is 37. Note that if you tried to calculate the value of this expression without observing the proper order of operations (say, by subtracting 2 from the parentheses before multiplying by 3) you would not find the same answer.

Word Problems

Percents

Example: Ticket sales for this year's annual concert at Minutemaid Park were $125,000. The promoter is predicting that next year's sales, in dollars, will be 40% greater than this year's. How many dollars in ticket sales is the promoter predicting for next year?
Answer: Next year's is 40% greater. 40% = 40/100 = .4, so .4 * $125,000 = $50,000. However, the example stated that next year's would be greater by that amount, so next year's sales would be this year's at $125,000 plus the increase at $50,000. $125,000 + $50,000 = $175,000

Distances

Probably the most common type of word problem on the GRE is the one that asks you to consider distance, rate, and time. You will recognize these problems: they begin with something like, "John drives 3 hours at 50 miles per hour. How many miles does John drive?" In other words, two values are given and you are asked to find the third. This is easy to calculate when you remember the simple equation distance = rate x time. In the example problem, the rate is 50 mph and the time is 3 hours, so the distance is 150 miles. Always make sure that the units in the problem are consistent, since you will not get very far trying to convert kilometers per hour into miles. Also, be aware that the unknown variable will not always be distance, in which case you will need to rearrange the equation

to solve for rate or time. For instance, if the problem states that "Dale drives 75 miles at 25 miles per hour," and asks you to determine how many hours Dale has been driving, you will need to solve for t, and your equation will be t = d/r. If the problem asks you to solve for rate, the equation will need to be rearranged to r = d/t.

Example: In a certain triangle, the longest side is 1 foot longer than the second-longest side, and the second-longest side is 1 foot longer than the shortest side. If the perimeter is 30 feet, how many feet long is the shortest side.
Answer: There are three sides, let's call them A, B, and C. A is the longest, B the medium sized, and C the shortest. Because A is described in reference to B's length and B is described in reference to C's length, all calculations should be done off of C, the final reference. Use a variable to represent C's length, "x". This means that C is "x" long, B is "x + 1" because B was 1 foot longer than C, and A is "x + 1 + 1" because A was 1 foot longer than B. To calculate a perimeter you simply add all three sides together, so P = length A + length B + length C, or (x) + (x + 1) + (x + 1 + 1) = x + x + x + 1 + 1 + 1 = 3x + 3. You know that the perimeter equals 30 feet, so 3x + 3 = 30. Subtracting 3 from both sides gives 3x + 3 – 3 = 30 – 3 or 3x = 27. Dividing both sides by 3 to get "x" all by itself gives 3x / 3 = 27 / 3 or x = 9. So C = x = 9, and B = x + 1 = 9 + 1 = 10, and
A = x + 1 + 1 = 9 + 1 + 1 = 11. A quick check of 9 + 10 + 11 = 30 for the perimeter distance proves that the answer of x = 9 is correct

Ratios

Example: An architect is drawing a scaled blueprint of an apartment building that is to be 100 feet wide and 250 feet long. On the drawing, if the building is 25 inches long, how many inches wide should it be.
Answer: Recognize the word "scaled" to indicate a similar drawing. Similar drawings or shapes can be solved using ratios. First, create the ratio fraction for the missing number, in this case the number of inches wide the drawing should be. The numerator of the first ratio fraction will be the matching known side, in this case "100 feet" wide. The question "100 feet wide is to how many inches wide?" gives us the first fraction of 100 / x. The question

"250 feet long is to 25 inches long?" gives us the second fraction of 250 / 25. Again, note that both numerators (100 and 250) are from the same shape. The denominators ("x" and 25) are both from the same shape or drawing as well. Cross multiplication gives 100 * 25 = 250 * x or 2500 = 250x. Dividing both sides by 250 to get x by itself yields 2500 / 250 = 250x / 250 or 10 = x.

Interest Problems

Some GRE word problems will require you to calculate the amount of interest that accrues on a given amount of money over a certain amount of time. In order to solve these problems, you will need to know the equation I = prt, in which I is interest, p is principal, r is rate of interest, and t is time. Imagine the following scenario: $20 is placed into an account with an annual interest rate of 5%. How much interest will the money have accrued over 5 years? The principal is $20, the interest rate is 5% (for the purposes of calculation you will want to convert the percentage into a decimal, so 5% becomes 0.05), and the time is 5, so the equation can be set up: I = 20 x 0.05 x 5, yielding an answer of $5. Remember to make sure that if the interest rate is annual, the time needs to be in units of years as well (for instance, six months would become 0.5). You do not need to worry about compound interest or variable rates. The interest-related questions on the GRE do not get that complex.

Equations

Basic Algebraic Operations

For the most part, performing operations with algebraic expressions is the same as performing operations with numbers. Remember that algebraic terms can only be combined when the variables are identical. This includes any exponent attached to the variable. For instance, the expression $6x^3 + 4x^2 – 2x^2 + 5x + 4x – 7$ can only be simplified to $6x^3 + 2x^2 + 9x – 7$, and an expression like $5x^2 + 4x – 3y^2$ cannot be simplified at all.

Some questions may ask you to factor a given algebraic expression. To factor an algebraic expression means to simplify it by breaking it down into its constituent components. One common form of algebraic expression is $x^2 – y^2$, which can be factored to become (x + y) (x

– y). This is true no matter what variable is used or what the value of x or y is, so for instance, $z^4 - 16 = (z^2 + 4)(z^2 - 4)$.

Linear Equations

When you are given a linear equation, your job is to find the value for each variable that makes the equation true. When the linear equation only has one variable, you should only need one equation to find the value of the variable. An example of a linear equation with one variable is $x - 6 = 4$. By adding 6 to both sides of the equation, we can see that the only possible value for x that makes this equation true is 10. In a nutshell, the method for solving linear equations with one variable is to isolate the variable on one side of the equation by removing all of the other values. This is done by adding, subtracting, multiplying, or dividing both sides of the equation by whatever number will remove the extra numbers from the side of the equation with the variable. If you are given the equation $3x + 7 = 19$, you will have to subtract 7 from both sides and then divide both sides by 3, leaving $x = 4$.

The process is slightly more complicated for linear equations including more than one variable. In these cases, you will need more than one equation in order to determine the values of all the variables. The method for solving these equations is to solve for one variable in a given equation, then substitute for that variable in the second equation and solve for the second variable. Let us take a look at an example. Say you are given the equations $2x + y = 7$ and $3y + x = 11$. To begin with, solve the first equation for y by subtracting 2x from both sides, leaving an equation of $y = 7 - 2x$. Then, substitute this new value for y (i.e., $7 - 2x$) into the second equation, $3(7 - 2x) + x = 11$. Distribute the 3 across the parentheses, yielding the equation $21 - 6x + x = 11$. Simplify this to $21 - 5x = 11$, then subtract 21 from both sides, yielding $-5x = -10$. By then dividing both sides by -5, we can end with $x = 2$. Now that we have a simple numerical value for x, we can substitute it into the first equation and solve for y. $2x + y = 7$ becomes $2(2) + y = 7$, which can be simplified to $4 + y = 7$: subtracting 4 from both sides yields a final answer of $y = 3$.

Inequalities

In most algebraic equations, the two sides will be separated by an equal sign (=). Sometimes, however, the symbol will be one that indicates an inequality. There are five inequality symbols that can appear on the GRE: <, meaning "is less than"; >, meaning "is greater than"; ≤, meaning "is less than or equal to"; ≥, meaning "is greater than or equal to"; and ≠, meaning "is not equal to." In almost every case, working with an inequality is the same as working with a normal equation (i.e., one with an = sign). The only exception is that when both sides of an inequality are multiplied or divided by a negative number, the direction of the inequality reverses. So, the result of dividing -3 into each side of the inequality $-6 > -3x$ would be $2 < x$.

Quadratic Equations

A quadratic equation is one that can be written in the form $ax^2 + bx + c = 0$, and in which a, b, and c are real numbers. For example, $x^2 + 2x - 3 = 0$ is a quadratic equation. There is a standard formula for finding the value of the variable in a quadratic equation:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Placing our example equation into this form would yield:

$$x = \frac{-2 \pm \sqrt{2^2 - 4*1*(-3)}}{2(1)} = \frac{-2 \pm \sqrt{16}}{2} = \frac{-2 \pm 4}{2}$$

The symbol ± means that you will have to solve the equation two ways, once with this symbol meaning addition and once with it meaning subtraction. Solving these equations will produce x = 1 and x = -3. When solved this way, some quadratic equations will produce only one answer, and some will not produce any answers. No quadratic equation will produce more than two possible values for x.

Special Formulas

FOIL (First, Outer, Inner, Last)

When you are given a problem such as (x + 2)(x – 3), you should use the FOIL method of multiplication. First, multiply the First parts of each equation (x*x). Then multiply the Outer parts of each equation (x*-3). Note that you should treat the minus 3 in the second

equation as a negative 3. Then multiply the Inner parts of each equation (2*x). Finally, multiply the Last parts of each equation (2*-3). Once you are finished, add each part together (x*x)+(x*-3)+(2*x)+(2*-3) = x^2 + -3x + 2x + -6 = x^2 – 3x + 2x – 6 = x^2 – 1x –6 = x^2 – x – 6.

Also, the GRE may give you another variation involving FOIL: you may be given a quadratic equation and asked to convert it back into an equation with two parenthetical expressions. If you are given the equation x^2 + 6x + 9 = 0, for example, you must find values that have a sum of 6 and a product of 9. The only values that can fit this description are 3 and 3, so the equivalent equation is (x + 3) (x + 3) = 0. Try factoring this new equation with FOIL and you will arrive at the original version. Some versions of this problem will include negatives and will therefore be slightly more difficult. For example, x^2 + 4x – 5 = 0 can be converted to (x + 5) (x – 1) = 0. Remember that this is true because 5 and -1 have a sum of 4 and a product of -5.

Slope-Intercept formula

y = mx + b, where m is the slope of the line and b is the y-intercept.

Example: In the (x,y) coordinate plane, what is the slope of the line 2y = x – 4?

Answer: First this needs to be converted into slope intercept form. Divide both sides by 2, which gives 2y/2 = (x-4)/2 or y= x/2 – 2. x/2 is the same as ½ *x, so since m in the formula y = mx+b is the slope, then in the equation y = ½ * x – 2, ½ is the slope.

Example: In the (x,y) coordinate plane, where does the line y = 2x – 3 cross the y-axis?

Answer: In the formula y = mx + b, b is the y – intercept, or where the line crosses the y-axis. In this case, b is represented by –3, so –3 is where the line crosses the y-axis.

Example: In the (x , y) coordinate plane, what is the slope of the line y = x + 2?

Answer: This is already in the slope intercept form of y = mx + b. Whenever x does not have a number in front of it, you can always assume that there is a 1 there. Therefore, this equation could also be written as y = 1x + 2, which means m = 1, and the slope is 1.

Slope formula

$m = (y_1 - y_2)/(x_1 - x_2)$, where m is the slope of the line and two points on the line are given by (x_1,y_1) and (x_2,y_2). This can sometimes be remembered by the statement "rise over run", which means that the "y" values represent the "rise" as they are the up and down dimension and the "x" values represent the "run" as they are the side to side dimension.

Example: What is the slope of a line that passes through points (5,1) and (-2, 3).

Answer: $m = (y_1 - y_2)/(x_1 - x_2)$ or $(1 - 3)/(5 - -2)$ or $-2 / (5 + 2)$ or $-2 / 7$

Line Plotting

If you are trying to plot a line, there is an easy way to do it. First convert the line into slope intercept form ($y = mx + b$). Then, put a dot on the y-axis at the value of b. For example, if you have a line given by $y= 2/3x + 1$, then the first point on the line would be at (0,1), because 1 is the y-intercept, or where the line crosses the y-axis. To find the next point on the line, use the slope, which is 2/3. First go 2 increments up, and then 3 increments to the right. To find the next point on the line, go 2 more increments up, and then 3 more increments to the right. You should always go either up or down depending on the numerator in the slope fraction. So if the slope is 3/5, then the numerator is 3, and you should go 3 increments up and 5 increments to the right. You should always go to the right the amount of the denominator. So if the slope is –2, then first you should remember that –2 is the same as –2/1. Since –2 is the numerator, you should go down 2 increments and then 1 increment to the right.

Remember that positive slopes slope upward from left to right and that negative slopes slope downward from left to right.

Mean, Median, mode

Some questions on the GRE may present you with a set of data and ask you to name the mean, median, or mode of the set. The mean of a set is the same thing as the average and is calculated in the same way, namely by adding together all the values in the set and dividing that sum by the number of values in the set. For instance, in the set of data {5, 6, 4, 9}, the mean would be calculated as follows: $(5 + 6 + 4 + 9)/ 4 = 6$. The median of a set is the

middle value when the set is arranged from least to greatest. In the set {1, 3, 5}, the median is 3. If the set contains an even number of values, the median is calculated by adding the two middle values together and then dividing by 2. For the set {2, 4, 6, 8}, the median would be calculated: (4 + 6)/2 = 5. Finally, the mode of a set of data is the value within the set that occurs most frequently. Sometimes, a set will have more than one mode. If every value within the set appears only once, it will not have a mode at all.

Range and Standard Deviation

For any given set of values, the range is the distance from the greatest value to the least. This can be calculated by subtracting the least value from the greatest. For the set {2, 5, 7, 8, 12), the range would be calculated 12 – 2 = 10. The method of calculating range is not affected by the number of values in the set or by the number of values that share the least or greatest measure.

Calculating the range is a rather crude way of judging the dispersion of values in a set of data. A more sophisticated measure is standard deviation. The process of determining standard deviation has several steps. First, the arithmetic mean of the set must be calculated. Next, the difference between each member of the set and the arithmetic mean must be found, and these differences must be squared and added together. This sum is then divided by the number of values in the set, and the square root of the quotient is found. The standard deviation is the absolute value of this square root (since standard deviation cannot be negative). Although it is unlikely that you will be required to calculate the standard deviation for a set of data, you should still have a working knowledge of the method for calculating standard deviation. It is more typical for a GRE question to give you the mean and the standard deviation of a set, and then to ask you to determine the range of a certain number of standard deviations from the mean. For example, say a set of data has a mean of 6 and a standard deviation of 2. If you are asked to calculate the range of values within 2 standard deviations of the mean, you can do so by first multiplying the standard deviation by 2. Standard deviation extends to either side of the arithmetic mean, so the

range will be all the values within 4 on either side of the mean. In other words, the range of values within 2 standard deviations of 6 will be 2 through 10.

Average

The word average is synonymous with the word mean. The basic rule for finding the average of a set of data is to add up all the members of the set and then divide by the number of members. The average of a set containing 1, 3, 6, and 6 would be calculated: (1 + 3 + 6 + 6)/4 = 4.

Some problems will give you the average of an incomplete set of data and ask you to identify the missing term. You can solve this kind of problem by rearranging the equation for finding an average. Instead of average = sum/# of members, use sum = average x # of members. For instance, if you are told that the average of a set containing 7, 5, x, and 20 is 10, you can determine that the sum of the members of the set must be 10 x 4 = 40. Since the known members of the set add up to 32, the missing member of the set must be 8.

On rare occasions you may have to deal with weighted averages, in which some of the values in the set are given more importance than others. For example, imagine that during the last ten games a certain baseball team scored 8 runs one time, 4 runs three times, 2 runs five times, and 0 runs one time. You cannot simply add up 8, 4, 2, and 0 and divide by 4 to find the average number of runs scored over the last ten games. Instead, you need to establish a set of ten members, and then multiply each value by its number of occurrences before adding. Therefore, the average would be calculated as follows: [1(8) + 3(4) + 5(2) + 1(0)]/10 = 3.

Simple Probability

The GRE will only cover the most basic concepts of probability. The essential formula to remember when dealing with these problems is that the probability of something occurring is equal to the number of outcomes in which the thing occurs, divided by the total number of possible outcomes. For instance, imagine that you have a drawer full of ties, 7 of which

are red and 5 of which are black. If you reach into the drawer and pull out one tie at random, the probability of selecting a red tie would be 7/12, and the probability of pulling out a black tie would be 5/12. Some questions will require you to combine probabilities. Using our example, we would say that the likelihood of selecting either a red or black tie would be 7/12 + 5/12 = 1. A probability of 1 means that the event is absolutely going to occur. Conversely, a probability of 0 means that the event is definitely not going to occur. There is no such thing as a negative probability.

In some cases, you will be asked to determine whether two events are independent or mutually exclusive of one another. Two events are described as being independent of one another when the occurrence of one does not have any effect on the possible occurrence of the other. For instance, there is a certain probability that the Dodgers will win the World Series, and there is a certain probability that a small meteor will crash into the Indian Ocean, but there is absolutely no connection between these two events, which are therefore said to be independent of one another. Events are defined as mutually exclusive when the occurrence of one makes it impossible for the other to occur. For instance, since the Dodgers and the Yankees cannot both win the World Series, these two events can be described as mutually exclusive.

Ratios

A ratio is simply a comparison between numbers. Indeed, ratios are noted in the same way as verbal analogies, since both involve a consideration of the relationship between two things. The ratio 4 to 5, then, would be expressed as 4:5. Ratios can also be expressed as fractions: for example, 4/5. Some ratios can be simplified. For instance, in the ratio 8:12, both terms are divisible by 4, so we can simplify the ratio to 2:3.

When a question asks about two similar shapes, expect a ratio problem.

Example: The figure below shows 2 triangles, where triangle ABC ~ A'B'C'. In these similar triangles, a = 3, b = 4, c = 5, and a' = 6. What is the value of b'?

Answer: You are given the dimensions of 1 side that is similar on both triangles (a and a'). You are looking for b' and are given the dimensions of b. Therefore you can set up a ratio of

a/a' = b/b' or 3/6 = 4/b'. To solve, cross multiply the two sides, multiplying 6*4 = 3*b' or 24 = 3b'. Dividing both sides by 3 (24/3 = 3b'/3) makes 8 = b', so 8 is the answer.
Note many other problems may have opportunities to use a ratio. Look for problems where you are trying to find dimensions for a shape and you have dimensions for a similar shape. These can nearly always be solved by setting up a ratio. Just be careful and set up corresponding measurements in the ratios. First decide what you are being asked for on shape B, represented by a variable, such as x. Then ask yourself, which side on similar shape A is the same size side as x. That is your first ratio fraction, set up a fraction like 2/x if 2 is the similar size side on shape A. Then find a side on each shape that is similar. If 4 is the size of another side on shape A and it corresponds to a side with size 3 on shape B, then your second ratio fraction is 4/3. Note that 2 and 4 are the two numerators in the ratio fractions and are both from shape A. Also note that "x" the unknown side and 3 are both the denominators in the ratio fractions and are both from shape B.

Graphs

The graphs used on the GRE will be the kinds most familiar to students: circle/pie graphs, double axis line graphs, triple axis line graphs, and bar graphs. Remember that on a circle or pie graph, the circle itself represents 1 or 100%. A double axis graph, otherwise known as a line graph, has a horizontal and a vertical axis, each of which represents an individual variable. A triple axis graph has an additional vertical axis on the right side, which is used to mark a third variable. A bar graph is composed of vertical or horizontal bars representing certain values. In rare cases, a question may include two kinds of graphs. When confronting this sort of problem, be sure that the units and scale used by the two graphs are consistent. If they are not, you will need to make adjustments in order to make accurate comparisons of data from each of the graphs.

Midpoints

To find a midpoint, find the difference in the x-direction between the two endpoints given, and divide by two. Then add that number to the leftmost endpoint's x-coordinate. That will be the x-coordinate of the midpoint. Next find the difference in the y-direction

between the two endpoints given, and divide by two. Then add that number to the lower endpoint's y-coordinate. That will be the y-coordinate of the midpoint.
Example: What is the midpoint of the line segment with endpoints of (-2 , 5) and (4 , 1)?
Answer: First, subtract the leftmost endpoint's x-coordinate from the rightmost endpoint's x-coordinate 4 - -2 = 4 + 2 = 6. Then divide by two, 6 / 2 = 3. Then add that number to the leftmost x-coordinate -2 + 3 = 1, which is the midpoint's x-coordinate. Second, subtract the lower endpoint's y-coordinate from the higher endpoint's y-coordinate 5 – 1 = 4. Then divide by two, 4 / 2 = 2. Then add that number to the lower y-coordinate 1 + 2 = 3, which is the midpoint's y-coordinate. So the midpoint is given by (1 , 3).

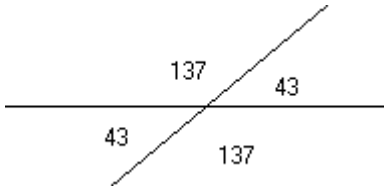
Lines

The basic unit of geometry is the line. Unless it is specified otherwise, lines are assumed to travel in opposite directions infinitely. Lines that are finite are called line segments.

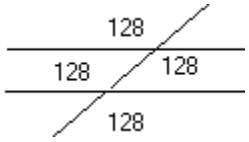
Angles

Where two lines intersect, angles are formed. The GRE will require you to know a few of the basic types of angles. A right angle is one in which the two sides of the angle are perpendicular to one another; a right angle measures 90°. An acute angle has a measure between 0° and 90°. An obtuse angle has a measure between 90° and 180°. An angle with a measure of 180° is called a straight angle, although for all intents and purposes this is just a straight line. Two or more angles that add up to 90° are referred to as complementary angles. Two or more angles that add up to 180° are referred to as supplementary angles. There is no such thing as a negative angle, or an angle measuring 0°. When two lines intersect and form 4 angles, the angles opposite one another are referred to as vertical angles; vertical angles are always equal. When two parallel lines (i.e., lines extending infinitely in either direction but never touching) are intersected by a third line, known as a transversal, the corresponding angles formed are called transverse angles.
If you have a two intersecting lines, remember that the sum of all of the angles can only be 360°. In fact, the two angles on either side of each line will add up to 180°. In the example below, on either side of each line, there is a 137° angle and a 43° angle (137° + 43°) = 180°.

Also note that opposite angles are equal. For example, the 43° angle is matched by a similar 43° angle on the opposite side of the intersection.



Additionally, parallel lines intersected by a third line will share angles. In the example below, note how each 128° angle is matched by a 128° angle on the opposite side. Also, all of the other angles in this example are 52° angles, because all of the angles on one side of a line have to equal 180° and since there are only two angles, if you have the degree of one, then you can find the degree of the other. In this case, the missing angle is given by 180° – 128° = 52°.



Triangles

There are a few properties and varieties of triangles that you will need to know for the GRE. In every triangle, the largest angle is opposite the longest side. The sum of the lengths of the two smallest sides of a triangle will be greater than the length of the longest side. When the measures of the angles inside a triangle are added up, the sum is always 180°. A triangle with three equal sides and three equal angles is known as an equilateral triangle. A triangle with two equal angles and two equal sides is referred to as an isosceles triangle. A triangle that has no equal sides and no equal angles is referred to as a scalene triangle. Any triangle in which one angle is equal to 90° is called a right triangle.

Remember that all of the angles in a triangle will add up to 180°. If you are given two of the angles, then subtract them both from 180° and you will have the degree of the third missing angle.

Example: If you have a triangle with two given angles of 20° and 130°, what degree is the third angle?

Answer: All angles must add up to 180°, so 180° – 20° – 130° = 30°.

Right Triangles

In a right triangle the two sides that form the right angle are called the legs, and the other side is called the hypotenuse. The Pythagorean Theorem describes one unique property of right triangles: the sum of the squares of the lengths of the two legs is equal to the length of the hypotenuse squared. The Pythagorean Theorem is usually written as follows: $a^2 + b^2 = c^2$.

Where a = the length of one of the shorter sides

b = the length of the other shorter side

c = the length of the hypotenuse or longest side opposite the 90° angle

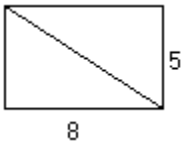
MAKE SURE YOU KNOW THIS FORMULA. At least 3-5 questions will reference variations on this formula by giving you two of the three variables and asking you to solve for the third.

Example: A right triangle has sides of 3 and 4; what is the length of the hypotenuse?

Answer: Solving the equation, $a^2=9$, $b^2=16$, so $c^2=25$; the square root of 25 is 5, the length of the hypotenuse c.

Note: The 3-4-5 triangle is the most common type of triangle requiring the Pythagorean triangle. This is where the two short sides have a length of 3 and 4, while the hypotenuse has a length of 5. Save calculation time by recognizing these quickly. Variations of this triangle could include multiples of 3-4-5, such as 6-8-10 or 9-12-15.

Example: In the rectangle below, what is the length of the diagonal line?



Answer: This rectangle is actually made of two right triangles. Whenever you have a right triangle, the Pythagorean Theorem can be used. Since the right side of the triangle is equal to 5, then the left side must also be equal to 5. This creates a triangle with one side equal to 5 and another side equal to 8. To use the Pythagorean Theorem, we state that $5^2 + 8^2 = c^2$ or $25 + 64 = c^2$ or $89 = c^2$ or $c = \sqrt{89}$

Circles

In geometry, a circle is defined as all of the points in a plane that are the same distance from a given point (the center of the circle). The distance from the center of a circle to any point on its border is known as the radius. Any line that passes from one edge of the circle to another is called a chord. The length of a line extending from one edge of the circle to another and passing through the center is known as the diameter. The diameter is the longest chord in any given circle. The diameter of a circle is twice the radius. The distance around the edge of the circle is known as the circumference of the circle. The circumference of a circle can be determined with the following equation: $c = 2\pi r$, in which r is the radius of the circle. The set of points including and connecting any two points on the edge of the circle is called an arc of the circle. Like angles, arcs are measured in degrees; the largest possible arc is 360°. Any line that touches a circle in exactly one point is called a tangent of that circle. The radius running from the center of the circle to the point at which a tangent meets the edge of the circle will be perpendicular to the tangent. Two or more circles that share a center but have different diameters are referred to as concentric circles.

Many students have never seen the formula for a circle:

$(x-A)^2 + (y-B)^2 = r^2$

This looks intimidating, but it's really not:

A = the coordinate of the center on the x-axis

B = the coordinate of the center on the y-axis

r = the radius of the circle

Example: What is the radius of the circle described by: $(x+2)^2 + (x-3)^2 = 16$

Answer: Since $r^2 = 16$, r, the radius, equals 4.

Also, this circle is centered at (-2,3) since those must be the values of A and B in the generic equation to make it the same as this equation.

Quadrilaterals and Other Polygons

A quadrilateral is any figure with four sides, in which the four interior angles add up to 360°. There are a few special quadrilaterals. A quadrilateral with four equal sides and four right angles is called a square. A quadrilateral with four equal sides and four interior angles that are not equal is called a rhombus. A quadrilateral with four equal angles and two opposite and equal pairs of sides is called a rectangle. All the angles in a rectangle are right angles. A quadrilateral with two opposite and equal pairs of sides and two opposite and equal pairs of non-right angles is called a parallelogram. A quadrilateral with four unequal angles and one pair of parallel sides is called a trapezoid.

Triangles and quadrilaterals are the types of polygons (closed figures) you are most likely to encounter on the GRE. You should know the names of some other regular polygons, however. A regular polygon is one in which all the sides and all the angles are equal. A regular polygon with five sides is called a pentagon. A regular polygon with six sides is called a hexagon. A regular polygon with seven sides is called a heptagon. A regular polygon with eight sides is called an octagon. A regular polygon with nine sides is called a nonagon. A regular polygon with ten sides is called a decagon. There is a simple formula for determining the sum of the interior angles in a regular polygon: simply subtract two from the number of sides and multiply by 180°. The sum of the interior angles of a pentagon, for instance, would be (5 – 2) 180° = 540°. You can find the measurement of each interior angle by dividing the sum of the interior angles by the number of sides in the figure: 540°/5 = 108°.

Area and Perimeter

You will need to know a few basic formulas for calculating the area of various figures. The area of the triangle is calculated using the formula a = ½(base x height), where the base is one side of the triangle and the height runs perpendicular to the base. The perimeter of the triangle, and indeed the perimeter of any polygon, is the sum of the lengths of the sides. The area of a square, rectangle, or parallelogram can be calculated by multiplying the length by the width. The area of a rhombus can be calculated by multiplying one half by the

product of the two diagonals (lines drawn between the vertices of opposing angles). The area of a circle is found using $a = \pi r^2$, in which r is the radius of the circle.

Cylinders, Rectangular Solids, and Cubes

Occasionally, the GRE will require you to work with basic three-dimensional figures like cubes, cylinders, and rectangular solids. A cylinder (shaped like a can) has two parallel circular bases of equal diameter. The height of a cylinder is measured perpendicular to the bases. The surface area of a cylinder is measured with the equation $A = 2(\pi r^2) + 2\pi rh$, in which r is the radius of the bases and h is the height. The volume of a cylinder can be calculated with the equation $V = \pi r^2 h$. A rectangular solid (shaped like a box) has six faces and twelve edges, connected at eight vertices. The volume of a rectangular solid is calculated with the equation V = lwh, in which l is length, w is width, and h is height. If these three measurements are equal, the rectangular solid is called a cube. The surface area of a rectangular solid is calculated with the equation A = 2(wl + lh + wh); in other words, surface area is the sum of the areas of the six faces of the rectangular solid.

Final Note

As mentioned before, word problems describing shapes should always be drawn out. Remember the old adage that a picture is worth a thousand words. If geometric shapes are described (line segments, circles, squares, etc) draw them out rather than trying to visualize how they should look.

On problems with variables, "plug and chug" by picking a number such as 1 or 2 and seeing if that would solve the problem. A 1 or 2 are good numbers to start with because they are easy to solve for with multiplication or division. If the 1 or 2 doesn't answer the problem, you can try either a larger or a smaller number, until you finally reach the result.

Approach problems systematically. Take time to understand what is being asked for. In many cases there is a drawing or graph to review. Use your scratch paper to draw lines, jot

notes, do whatever is necessary to create a visual picture and to allow you to understand what is being asked.

Even if you have always done well in math, you may not succeed on the GRE. While math tests in high school and college test specific competencies in specific subjects, the GRE frequently tests your ability to apply math concepts from vastly different math subjects in one problem. However, in few cases is any GRE Quantitative problem more than two "layers" deep.

What does this mean for you? You can easily learn the GRE Quantitative Test through taking multiple practice tests. If you have some gaps in your math knowledge, we suggest you buy a more basic study guide to help you build a foundation before applying our secrets. Check out our special report to find out which study guide is worth your time.

Analytical Writing Test

The Analytical Writing section may be the section of the exam for which candidates are least prepared. There are a number of reasons why this may be so. For one thing, this section of the exam is relatively new, and many first-time test-takers are not even aware that it exists when they sit down for the examination. Many students have a general dislike of writing, which they associate with hard labor. Given the choice between composing an essay and answering a series of multiple-choice questions, most students will choose the latter.

Still, the predominant reason why students arrive at the testing center unprepared for the Analytical Writing section of the exam is that they simply do not know how to prepare. On the Verbal and Quantitative Ability sections, studying is straightforward: simply learn the types of questions and the content to be covered. This process may not always be easy, but at least it is fairly obvious. For many college students, however, preparing to sit down and write a couple of extended essays can be daunting. Moreover, students whose undergraduate courses did not require a great deal of writing may not have performed such a task since taking a freshman composition course. The basic structure of a persuasive or analytical essay may be long forgotten. Students may be discouraged, feeling that it is impossible to learn to write in a short period of time.

This despair is unnecessary. Even though a crash course in Analytical Writing may not turn you into a best-selling author, it can teach you the fundamentals of composition so that you can achieve an excellent score on the GRE. Preparing for the Analytical Writing section does not need to be any more difficult than preparing for the other sections of the GRE. In fact, it is not much different. To get you ready to excel on the Analytical Writing section, we will take a close look at the two types of essays required, and discuss ways to approach each of them. Then we will create a basic plan for composing your responses so that when you enter the testing facility you will already have done most of the hard work.

The Analytical Writing sections of the GRE consist of one 45 minute writing section on an issue and one 30 minute writing section on an argument.

1.) Issue Analysis
2.) Argument Analysis

Analytical Writing responses are graded according to a simple protocol. Each essay is examined by two readers who score it on a scale of zero to six. If the two scores issued for each essay are within one point of each other, they are averaged and finalized. If the difference between the score is greater than one point, a third reader is called in to arbitrate. Your final Analytical Writing score will be the average of your scores on the Present Your Perspective and Analyze an Argument essays.

The Analytical Writing response scoring system is "holistic," which means that it is based on a general view of the responses rather than on any specific or individual criteria. This means that minor and occasional spelling and grammar mistakes will not have an effect on your grade. The scoring criteria for the two exams are basically the same. A top score of six will be awarded to essays that are consistently convincing, well-articulated, and clear. Essays that achieve these qualities only sometimes or most of the time will earn a 4 or 5. Essays that demonstrate flashes of competence but which more often fail to show competency, are given a 3. Essays that are marked by serious flaws in reasoning and poor writing will be a given a 2. A 1 will be only be given to a response that either makes no sense or is not on-topic. Now for some good news: all of the possible prompts used on the GRE are listed on the ETS website. You should spend at least a few hours looking over these prompts, taking a position and imagining a few basic arguments. Look up any words that you do not already know. There are probably too many potential prompts for it to be practical to examine each one in depth, but you can at least familiarize yourself with the question format and the kinds of topics that are likely to appear on the exam. Also, acquainting yourself with the essay prompts will stimulate your brain to start thinking along those lines in the weeks running up to the exam. You may see a newspaper or magazine article that pertains to one of the potential prompts, or you may just find yourself

mulling over one of these issues. By giving your brain a chance to digest these potential topics, you improve your chances of producing a thoughtful, well-rounded essay. At the very least, when you finally sit down to take the GRE, you should have no excuse for being surprised.

Issue Analysis

Two issues will be presented to you and you must pick one and write out your views on it within the 45 minutes allowed. There is not a "correct" answer to the problem. You must choose a position on the issue, organize your ideas, and develop them into a cohesive and coherent stance. You will be scored on how well you are able to utilize standard written English, organize and explain your ideas, and support those ideas with reasons and examples.

If, for some reason, both prompts are uninspiring, jot down a few quick ideas for each and decide which prompt you think you can address the best. Remember, a prompt that focuses on a subject that is very important to you, may not be appropriate if you do not have solid reasoning to back up your opinion. The readers on the GRE will reward your passion, but not if it is unaccompanied by specific examples and insightful arguments.

Brainstorm

Spend the first three to five minutes brainstorming out ideas. Write down any ideas you might have on the issue, regardless of which side it supports. The purpose is to extract from the recesses of your memory any relevant information. Put the ideas that support one side in one grouping and then further down on your page group the ideas that support the other side. You can use either the scratch paper provided or the word processor to quickly jot down your thoughts and ideas. The word processor is highly recommended though, particularly if you are a fast typist.

Strength through Diversity

The best papers will contain diversity of examples and reasoning. As you brainstorm consider different perspectives. Not only are there two sides to every issue, but also there

are also countless perspectives that can be considered. On any issue, different groups are impacted, with many reaching the same conclusion or position, but through vastly different paths. Try to "see" the issue through as many different eyes as you can. Look at it from every angle and from every vantage point. The more diverse the reasoning used, the more balanced the paper will become and the better the score.

Example:

The issue of free trade is not just two sided. It impacts politicians, domestic (US) manufacturers, foreign manufacturers, the US economy, the world economy, strategic alliances, retailers, wholesalers, consumers, unions, workers, and the exchange of more than just goods, but also of ideas, beliefs, and cultures. The more of these angles that you can approach the issue from, the more solid your reasoning and the stronger your position.

Furthermore, don't just use information as to how the issue impacts other people. Draw liberally from your own experience and your own observations. Explain a personal experience that you have had and your own emotions from that moment. Anything that you've seen in your community or observed in society can be expanded upon to further round out your position on the issue.

Pick a Side

Once you have finished with your creative flow, stop and review it. Which side were you able to come up with more supporting information? It's easy to be biased and to have a side that you believe in and support with your own personal opinion. While enthusiasm for a viewpoint is important, of much more importance is the ability to have a thorough and comprehensive coverage of an issue and the position that you choose. This is not about your personal convictions. Each idea that you can write about and expand upon is a defensive tool. Therefore, pick a side on the issue to defend based upon what you have the most defensive tools to work with. However, you may find that this coincides nicely with what you do believe, since you probably know more information that supports what you believe than detracts from what you believe.

Weed the Garden

Every garden of ideas gets weeds in it. The ideas that you brainstormed over are going to be random pieces of information of mixed value. Go through it methodically and pick out the ones that are the best. The best ideas are strong arguments that it will be easy to write a few sentences or a paragraph about.

Create a Logical Flow

You will then take these notes and begin to shape them into a rough outline. The outline is your map for writing the essay: it reminds you of where you are trying to go, as well as where you need to make stops along the way. Too often, students will assume that they have a firm grasp over the topic, and will just begin writing without creating a basic outline. Then they get distracted by something in the testing center, or become overly focused on one aspect of their argument, and end up forgetting to include an important part of their response. By composing an outline, you can save yourself the trouble of keeping your entire argument in your head as you write.

The structure of your outline, and hence, your essay, should be the same no matter what topic or position you are discussing. In the first paragraph, you will lay out the issue to be discussed and indicate your position. In the second, third, and fourth paragraphs, you will give reasons and examples in support of your position. Finally, in the fifth paragraph you will summarize and generalize your position. There is nothing profound or mysterious about this format: it is the essay structure that has been drilled into your head since middle school. Do not worry about lack of originality: GRE readers spend five minutes at the most on each essay, and they frankly do not have time to appreciate essays that use unconventional organization. Instead, they look for essays that are easy to read (even if a little dull!) and that are original in their content rather than their structure. Besides, your job becomes much easier when you have a simple template to use, no matter what topic you are discussing.

Start Your Engines

You have a logical flow of main ideas with which to start writing. Begin expanding on the issues in the sequence that you have set for yourself. Pace yourself. Don't spend too much

time on any one of the ideas that you are expanding upon. You want to have time for all of them. Make sure you watch your time. If you have thirty minutes left to write out your ideas and you have ten ideas, then you can only use three minutes per idea. It can be a daunting task to cram a lot of information down in words in a short amount of time, but if you pace yourself, you can get through it all. If you find that you are falling behind, speed up. Move through each idea more quickly, spending less time to expand upon the idea in order to catch back up.

Once you finish expanding on each idea, go back to your brainstorming session up above, where you typed out your ideas. Go ahead and delete the ideas as you write about them. This will let you see what you need to write about next, and also allow you to pace yourself and see what you have left to cover.

Paragraph Details

As mentioned above, in the first paragraph you need to begin by articulating the topic under consideration; in other words, outline the basic issue first, without declaring your own position. You do not want to simply duplicate the language used in the prompt. For instance, consider the example topic: "Laws should exist solely to keep people from hurting one another; there should not be laws to prevent people from hurting themselves." An effective way to introduce the issue might be, "There is a longstanding debate over whether or not laws should extend to the private behavior of citizens." Note how this sentence, bland though it may be, outlines the issue at hand without indicating which side you will be taking. It is important for you to be able to express the topic in an impartial manner so that the reader can become oriented with the discussion. If you simply launch into an impassioned argument, the reader may feel alienated or confused.

After the basic outline of the topic issue, your first paragraph needs to include a summary of your own position. This summary must be clear and concise: there should be no confusion over where you stand after this first paragraph. Continuing with our example, after introducing the topic, the author might write, "It is my belief that since individual

behavior, no matter how private, will inevitably affect other people, laws should be extended to prevent self-inflicted damage to individuals and their property." After such a statement, there is no doubt where the author stands: he or she is in favor of legislation forbidding individuals from harming themselves. Also, note the use of the personal pronouns, as in "It is my belief." On the Present Your Perspective essay, you should feel free to claim your opinions (after all, the essay is all about presenting your perspective). This is preferable to ambiguous expressions like "one believes." The whole point of this first paragraph is to show that you know what you are talking about, and to show exactly where you stand on the issue.

Once your position has been clearly articulated, you can move on to supporting it in the subsequent paragraphs. This is when your list of brainstormed ideas will come in handy. Pare the list down to the best three to five ideas or examples, and then rank them from best to worst. You always want to open with your strongest point. In our example, the author's strongest point is probably that self-destructive behavior is actually damaging to other people as well. The author will want to make this argument in the second paragraph.
When you are establishing the reasons for your position, try to be as specific as possible. This does not mean you need to worry about providing direct quotes or exact numbers, but you should be able to cite specific instances and trends that support your case.
Also, as you begin to expand your argument in the supporting paragraphs, keep in mind your list of potential counterarguments. The GRE reader will want you to acknowledge and rebut any obvious arguments that run counter to your own position. If you ignore clear contradictions, the reader will penalize you. For instance, the author of our example essay would need to admit that some people argue that drug abuse, failure to wear a seatbelt, and even suicide are private decisions that only affect the individuals involved. The author might argue that these people ignore the toll that such self-destructive behavior takes on the economy, the community, and the world as a whole. The author might give a couple of quick examples to show how seemingly individual behavior affects other people. By describing the ways in which this counterargument is unreasonable, the author will strengthen his own position.

In all of the following support paragraphs, the guidelines are the same. Try to be as specific as possible, and be sure to address any legitimate counterarguments to your position. Make sure that all of your examples make sense and have a clear application to the problem being discussed. If you are going to use examples from your personal life, make sure that you can focus on the parts that are relevant to your argument rather than getting bogged down in setting an elaborate scene. As a general rule, if a story or anecdote is going to take more than three sentences to deliver, it is probably not worth the trouble. You want your supporting paragraphs to be brimming with ideas and evidence, not meandering or digressive.

As you are making your argument in the supporting paragraphs, do not be afraid to use clichéd transitional phrases like "next," "another," and "finally." Advanced composition classes will try to move students beyond such obvious structural markers, but on the GRE you can feel free to dust off some of these hackneyed expressions in the interest of clarity. As we have already discussed, the readers of your essay will not be hoping for unorthodox structure: they want a solid essay with good ideas and an easy-to-read format. There is one exception: it is perhaps too formulaic to begin each of your supporting paragraphs with "first," "second," etc. Other than that, go ahead and make your transitions obvious, so that the reader will spend his or her time focusing on the strength of your argument rather than the subtlety of your style.

After you have given three or four specific and detailed arguments or examples in support of your position, it is time to wrap up your essay in a conclusion paragraph. Here, again, it is fitting to announce your finale with a phrase like "in conclusion" or "as you can see." (Of course, if you use the latter expression, you had better be confident that your argument was clear). Then, give a one-sentence recapitulation of your argument. Too often, students take up the entire conclusion paragraph giving a complete review of the essay to that point. This is unnecessary: provided you have been clear so far, your reader is only going to be bored by an abridged version of what he or she has already read.

Instead, you should use the conclusion paragraph first to summarize, and then to generalize your argument. In other words, expand the scope of your argument to take notice of any larger issues or themes. Returning to our hypothetical essay, the author might use the conclusion paragraph to assert that since private self-destructive behavior really does affect other people, individuals should try to be more conscious of the ways in which they mistreat themselves. Note that this kind of generalization can be overdone: it would probably be a bit much, for instance, for the author to declare that his argument proves that all living creatures are one. The GRE readers do not want you to use your conclusion paragraphs to advance your vision of the cosmos, but rather to show an awareness of the way that your topic connects with other issues. If you can suggest some ways in which your argument resonates beyond the parameters of your essay, then that will be enough.

Don't Panic

Panicking will not put down any more words on paper for you. Therefore, it isn't helpful. When you first see the topic, if your mind goes as blank as the page on which you have to type out your paper, take a deep breath. Force yourself to mechanically go through the steps listed above. Ask yourself who would be impacted by this issue? Would you be impacted? Someone you know? Who stands to benefit or lose from this issue?

Secondly, don't get clock fever. It's easy to be overwhelmed when you're looking at a page that doesn't seem to have much text, there is a lot of blank space further down, your mind is full of random thoughts and feeling confused, and the clock is ticking down faster than you would like. You brainstormed first so that you don't have to keep coming up with ideas. If you're running out of time and you have a lot of ideas that you haven't expanded upon, don't be afraid to make some cuts. Start picking the best ideas that you have left and expand on those few. Don't feel like you have to write down all of your ideas.

Check Your Work

It is more important to have a shorter paper that is well written and well organized, than a longer paper that is poorly written and poorly organized. Don't keep writing about a subject just to add words and sentences, and certainly don't start repeating yourself. Expand on the ideas that you identified in the brainstorming session and make sure that you save yourself a few minutes at the end to go back and check your work.

Leave time at the end, at least three minutes, to go back and check over your work. Reread and make sure that everything you've written makes sense and flows. Clean up any spelling or grammar mistakes that you might have made. If you see anything that needs to be moved around, such as a paragraph that would fit in better somewhere else, cut and paste it to that new location. Also, go ahead and delete any brainstorming ideas that you weren't able to expand upon and clean up any other extraneous information that you might have typed that doesn't fit into your paper.

As you proofread, make sure there aren't any fragments or run-ons. Check for sentences that are too short or too long. If the sentence is too short, look to see if you have an identifiable subject and verb. If it is too long, break it up into two separate sentences. Watch out for any "big" words you may have used. It's okay to use difficult vocabulary words, but be positive that you are using them correctly. The position you are defending is important. It needs to be solid and convincing, not fancy. You're not trying to impress anyone with your vocabulary, just your ability to develop and express ideas.

Shortcut Keys

Spend some time on your keyboard getting familiar with the shortcut keys to cut, copy, and paste. It will help you to quickly move text around on your paper. First highlight the text you wish to move or copy and then type:

Ctrl+C = copy

Ctrl+X = cut

Ctrl+V = paste

You must hold down the ctrl key and then tap the “c”, “x”, or “v” key to perform the desired function.

Argument Analysis

An argument will be presented to you and you must write out a critique on it within the 30 minutes allowed. There is not a “correct” side to the argument and you are not being asked about your own personal views on the topic. You must evaluate the argument, organize your ideas, and develop them into a cohesive and coherent critique.

You will be scored on how well you are able to utilize standard written English, organize and explain your ideas, and support those ideas with reasons and examples.

Breakdown

From the very beginning, your focus should be on the argument introduced in the prompt. Remember that you will not be able to choose from a list of prompts: you will have to work with the one you are given. The prompt will be longer than the ones for the Present Your Perspective essay, so take your time and read it carefully. It is typical for the prompt to be written from a particular viewpoint. For instance, a prompt might begin by saying that the following statement appeared on the editorial page of a newspaper, in a report published by a certain institution, or in a newsletter distributed by a specific political organization. Pay attention to the source of the argument, as this will help you begin your analysis. You want to be sensitive to any prejudices that might be natural to a particular author. As you read the argument that follows, bear the source in mind and see if that generates any insights.

Spend the first three to five minutes breaking the argument down into little pieces by asking yourself a series of questions.
What assumptions does the argument make?
What explanations does it rely upon?
What authority does it stand upon?

What supports the reasoning used?
What evidence is used?
What examples are provided?

Then ask some follow-up questions.
What changes to the argument would make it stronger?
What changes to the argument would make it weaker?
What would help you to reach a stronger conclusion?
What would make it more logical?
What would make it more balanced?

Findings

Let us look at an example. The following argument was taken from a guide for would-be musicians:

Fledgling musicians need to establish themselves with small record labels before seeking attention from more well-known entities. However, the rise of the internet and do-it-yourself production have made it easier than ever for novice musicians to create a quality product on a small budget. There is also a much larger market these days for musicians to make and sell their music without any assistance from a label. Some musicians enjoy the process of developing and marketing their songs, while others would rather leave the work to their representatives. The most important thing is to have a good time while you are making music.

Remember that you are not being asked about your personal beliefs or convictions. You are asked whether the argument is well reasoned. Based on the questions that you've asked yourself, you should have a good understanding as to how irrefutable is the argument's logic. Make a decision as to how strong or weak the argument is.

To begin with, let us examine the basic parts of an argument: premise, assumptions, reasoning, and conclusion. Before you create your outline for the Analyze an Argument essay, you will need to identify these elements within the prompt. The premise of an argument is its starting point, the agreed-upon beginning of its reasoning. In the example, the premise of the argument is that beginning musicians should establish themselves first with a small label. The author has not yet told us why this is necessary or what the benefit of it will be. We are simply supposed to assume the premise to be true as we continue with the argument. Of course, in many cases you will find that the premise of an argument is nonsensical or unsupported. Note that you are not required to agree with the premise of an argument. At this point, it is enough to identify it and move on to an examination of the other components of the argument.

The assumptions of the argument are perhaps the most difficult elements to identify since they are not made explicitly. The assumptions are those things that the author must take for granted as being true in order to make his or her point. They are all of the unstated bridges between premise and conclusion. As a critical reader, it is your job to articulate the underlying assumptions and decide whether they make sense. In the example argument, the author makes a number of assumptions:

- All musicians want to be on a major label.
- All kinds of music can be created on a low budget.
- There is a larger market for all kinds of music.

You could probably find more assumptions implicit in the argument, but three good ones will suffice. It is clear that there are some major problems with these assumptions; specifically, it seems that the author is often guilty of generalizing his beliefs. This is not always a problem; after all, every author must generalize a bit in order to discuss abstract ideas. However, do the assumptions made by this author undermine his or her cause?

Before we go on to consider the reasoning of an argument, let us review some of the most common kinds of faulty assumptions on the GRE. In the previous paragraph, we saw some good examples of generalization assumptions, in which the author makes blanket

statements about an entire category. Often, we will find that the exceptions to the author's assumption cast the entire argument into doubt. Another common kind of assumption is the causal assumption, in which the author suggests that there is only one cause for a given effect, and that the removal of the cause will therefore cause an immediate removal of the effect. For instance, an author might suggest that because smoking causes lung cancer, the prohibition of tobacco would bring an end to the disease. Of course, there are other causes of lung cancer besides tobacco, so this is a faulty causal assumption.

The arguments on the GRE may also contain faulty sampling assumptions, in which the author makes a sweeping statement based on a very small amount of data. One of the most common kinds of sampling assumptions is when the author universalizes his or her own personal experience. For instance, "None of my friends have been harassed on the subway, so to say there is a growing menace there is incorrect." The author erroneously assumes that the experience of his or her friends is a fair representation of the entire subway-riding population. Sampling assumptions may also be faulty when the author uses a particular survey or study to prove something other than what the survey set out to prove.

The final kind of assumption that you should be wary of is the analogy assumption. An author will sometimes suggest that two things are comparable when, in fact, they are not. Typically, the author will point out a characteristic of one of the things and then suggest that it must be true of the other as well. Of course, if the things in question are not really analogous then this assumption must be false. For example, consider the following statement: "Cats do not enjoy the heat; after all, dogs try to avoid direct sunlight, and both these animals are common house pets." The author makes a statement about dogs, and then asks you to assume it to be true of cats since these are domestic animals as well. Regardless of whether you agree that dogs try to avoid direct sunlight, it is clearly absurd to suggest that dogs and cats are exactly the same just because they are both kept as pets. This is an example of a faulty analogy assumption.

After you identify the author's premise and assumptions, you should quickly note his or her conclusion. The conclusion should be the general point supported by all of the author's reasoning. It is usually indicated by words like "therefore," "thus," "as a result," and "hence." The conclusion of the argument is almost always the last sentence, though occasionally the GRE will try to confuse you by tacking on an irrelevant final sentence. Indeed, the final sentence in our example prompt somewhat fits this description. Up to that point, the author has been discussing how best to establish oneself in the music industry, and then in the final sentence, he declares that the most important thing in music is to enjoy yourself. This sentence sounds like a conclusion ("The most important thing…"), but it clearly has no relation to the rest of the prompt.

Finally, before you create your outline and write your essay, you need to consider the reasoning of the argument. The reasoning of an argument is the specific set of ideas and examples that the author uses to move from premise to conclusion. The best kind of reasoning is clear, precise, and relevant to the subject. If the author endeavors to support his or her argument with examples, they must be appropriate. There are a number of ways in which reasoning can be defective. Sometimes the author will dilute a good argument by including irrelevant information. Other times, an author will have good reasoning, but will draw an incorrect conclusion from it. The reasoning, at times, might contain gaps that require impossible assumptions by the reader.

There are several problems with the reasoning in our example prompt. The author begins by declaring that novice musicians should start with a small record label. He then goes on to undermine this suggestion by asserting that musicians now have the capability to make quality music on their own. Well, one might wonder, which is it? Seek out a small label, or do it yourself? The author continues by stating that independent musicians have a much larger market for their products than ever before. This would seem to support the notion of working without a record label. Again, the author subsequently weakens this idea by declaring that some musicians would prefer to leave the business and production work to

someone else. Finally, as we have already mentioned, the author concludes with a sentence that is basically irrelevant.

Organize

In the first paragraph, you should articulate your general analysis of the argument, making sure to identify the premise and conclusion. In the succeeding two or three paragraphs, you should discuss the specific strengths and weaknesses of the argument's reasoning and assumptions. In your final paragraph, you should summarize your analysis and describe some ways in which the argument could be improved.

First Paragraph

To begin with, you will need to establish the general form of the argument and indicate the results of your analysis. Using our example prompt, an effective essay might begin by stating the general premise: new musicians ought to start out with a small record label. It might go on to say that the reasoning of the argument only partially supports this premise, and indeed, just as often supports an entirely different premise; namely, musicians can be successful, independent of any record label. Finally, the "conclusion" statement of the argument is irrelevant to the preceding argument. There is no need to go into too much depth with your introductory paragraph: simply assert your general judgment of the argument. If someone was to only read this paragraph, they should be able to get an "executive summary" of the entire paper.

Body Paragraph

In your supporting paragraphs, you can expand your critique. As with the Present Your Perspective essay, it is always advisable to lead with your most powerful ideas. (The only exception to this strategy is that you probably do not want to begin by discussing the conclusion of the argument.) For some arguments, the most important issue may be faulty assumptions. In others, the most outstanding errors may be in the reasoning. For the example prompt, the greatest weakness seems to be that the author argues in favor of two different ideas. In other words, the primary fault of the argument is one of reasoning. The author does make some problematic assumptions, but these are not as worrisome as the

ineffective reasoning and nonsensical conclusion. An effective critique of this argument would begin by attacking the poor reasoning and conclusion, and would only discuss the faulty assumptions if time allowed.

Conclusion Paragraph

In the conclusion paragraph of your Analyze an Argument essay, summarize your analysis, and more importantly, recommend some ways to improve the argument. These suggestions should be clear, specific, and restricted to the parameters of the discussion. In other words, do not suggest that the argument be changed in a radical way. Remember that this essay is not meant to be a forum for your opinions. Limit your suggestions to the specific reasoning and assumptions used by the author, without distorting the premise or conclusions from the author's basic intent. For instance, a critique of the example prompt might end by suggesting that the author decide which method for success he wants to endorse, and then eliminate all of the information that diverges from this thesis. Furthermore, the critique might recommend that the author abandon his conclusion sentence in favor of a recapitulation of the streamlined thesis. In any case, you do not want to spend the concluding paragraph of this essay ruminating on the implications of the argument, as you would on the Present Your Perspective essay. Restrict your remarks to the argument as it is written and you will be rewarded.

Final Review

Let us take a moment to consider a few issues of style. First of all, you should try to make your spelling as perfect as possible without becoming obsessive. The GRE does not dock your score for misspellings, but readers will admit that serial errors can be distracting and off-putting. The word processor program used on the GRE does not include a spell-check function, so those students who are used to relying on the computer to correct spelling errors will have to be more diligent. If you suspect that you may be spelling a certain word wrong, see if you can use a synonym instead. If you absolutely have to use the questionable word, do your best and move on. Remember that unless your spelling errors are rampant, you will not be penalized.

A similar hang-up for many students on the Analytical Writing section is the question of vocabulary. In general, you want to use as many specific and vivid words as possible without overwriting. For instance, avoid describing something as "very good" when you could say that it was "fantastic": don't say "dog" when you really mean "schnauzer." The GRE readers are trained to pay more attention to your reasoning than to your diction, but they will nevertheless reward those students who write energetically and colorfully. There are some limits, however. You should never use a sophisticated word unless you are absolutely sure of the definition, and unless it can be used in a natural way. The GRE readers are extremely sensitive to pretentiousness, and they will be quick to punish you for showing off. If you feel like you are going out of your way just to use a particular word, it is probably not worth it. Also, never use any slang or inappropriate language. This may seem obvious, but every year some students are penalized for using vulgar or overly-familiar language on the GRE. The Analytical Writing section is one time when it is good to be bland: you do not want to run the risk of offending your reader.

For this reason, be very careful about how you use personal anecdotes in the Present Your Perspective argument. When used properly, illustrative stories are an excellent way to add life to your argument. However, there is a danger of straying too far from the task at hand, so only use these anecdotes when you can do so quickly and appropriately. Also, never use personal anecdotes on the Analyze an Argument essay: this essay is meant to be strictly a critique of the prompt argument.

If you can only remember one piece of advice regarding the Analytical Writing section, it is this: depth rather than breadth. That is, concentrate on a few great ideas and explicate them fully, rather than trying to dazzle the reader with every single relevant thought that flies into your brain. In the end, your score will be much higher if you make your points clear, precise, and detailed.

Finally, a word about preparation: After you have studied the basic essay outlines described above, the best way to get ready for the Analytical Writing section of the GRE is by setting up a timer and practicing composition. Remember to use the list of possible prompts posted on the ETS website. It is very important to time yourself so that you can develop a feeling for how long you should take reading, planning, and writing your responses. For most students, it is typical for the Present Your Perspective essay to run between 400 and 750 words, and for the Analyze an Argument essay to run between 300 and 650 words. However, do not worry about achieving any specific length. Concentrate instead on making each essay as strong as possible. After you have practiced each of the essays a few times, you will be amazed at how easy it has become!

Final Note

Depending on your test taking preferences and personality, the Analytical Writing test will probably be your hardest or your easiest test. You are required to go through the entire process of writing a paper in 45 minutes or less, which can be quite a challenge.

Focus upon each of the steps listed above. Go through the process of creative flow first, generating ideas and thoughts about the topic. Then organize those ideas into a smooth logical flow. Pick out the ones that are best from the list you have created. Decide upon which side of the issue you will discuss, or your overall impression of the argument.

Create a recognizable structure in your paper, with an introductory paragraph explaining what you have decided upon, and what your main points will be. Use the body paragraphs to expand on those main points and have a conclusion that wraps up the issue or argument.

Save a few moments to go back and review what you have written. Clean up any minor mistakes that you might have had and give it those last few critical touches that can make a huge difference. Finally, be proud and confident of what you have written and prepare yourself for the next phase of the test.

Appendix: New Question Types

Beginning in November 2007, the Educational Testing Service will be introducing two new question types to the Graduate Record Examination. This is being done in the hopes of gradually improving the exam. Some students taking the computer-based version of the exam will encounter either one text completion exercise in the Verbal Ability section or one numerical entry exercise in the Quantitative Ability section. Some computer-based exams will not contain either of the new question types, and no paper-based versions of the exam will contain either of the new question types. The number of questions and length of time allowed for each section will not be affected by the presence of new question types.

For the present, your performance on the new question types will not contribute to your score. It is important, however, for you to do your best on these new questions, as the data acquired by ETS will affect future versions of the exam. These questions will most likely comprise an increasing portion of the GRE in the near future, so it is in your best interest to become versed in their format. For this reason, we have included here a basic summary and strategy guide for text completion and numeric entry exercises.

Text Completions

Text completion exercises will require you to fill in two or three blanks to make a short text sensible and fluent. The ETS is introducing this question format to measure your vocabulary as well as your ability to construct a clear sentence in standard written English.

The format of text completion exercises is fairly simple, and should be familiar to anyone who has done fill-in-the-blank exercises in the past. The directions above the exercise will be as follows:

> *For each blank select one entry from the corresponding column of choices. Fill all blanks in the way that best completes the text.*

Below these directions will be a passage of text, from one to five sentences long. There will be two or three blanks in this passage. Below the passage will be a table in which there are three answer choices for each of the blanks in the passage. These blanks will be assigned lower-case Roman numerals (i.e. i, ii, iii). You are required to select one answer choice for

each of the blanks. The answer choices for each blank are independent of one another, meaning that your selection for one blank should not affect your selection for the others. Text completion exercises are an "all or nothing" venture; you will not receive any credit if you do not get *all* of the answers correct.

That being said, there is no reason why this new question type should intimidate you any more than an analogy, antonym, or reading comprehension question. In fact, once we have discussed the basic approach to text completion exercises, you may even look forward to these questions! Let's start by taking a look at a sample passage:

> *The American whaling industry __(i)__ between the War of 1812 and the beginning of the Civil War. During this period, scores of coastal towns launched their own whaling enterprises hoping to cash in on this __(ii)__ trade. It was then that the whaling industry __(iii)__ its greatest stories of perseverance and courage.*

This is an average length for a text completion passage. Before you proceed on to the answer choices, you should always begin by reading the passage all the way through, just to acquaint yourself with its general structure. As you make this cursory examination of the text, you might go ahead and identify the parts of speech that will be required for each blank. For instance, in the first sentence the missing word will describe what the whaling industry *did* during this period; it must therefore be a verb. In the second sentence, an adjective will be required to show exactly what *kind* of trade is being discussed, and in the third sentence a verb is necessary to describe again what the industry *did*.

Once you have made this brief scan through the passage, you should focus on any significant words that might give a clue as to the answer. In the above passage, for instance, the words *hoping to cash in on* suggest that the whaling trade was doing well at this point. Other passages may contain words that amplify or reverse meaning. Consider the following sentence: *Though he was known to be frugal, Henry managed to _____ his fortune in six months*. Note how the word *though* reverses what is called for by the blank. If *though* were not there, we might be looking a word like *increase*, *maintain*, or *raise*. Instead, though, the appropriate word for this blank could be *lose*, *decrease*, or *spend*! In

just this way, you might brainstorm some words that would be appropriate for the blanks in our example passage.

An important point to remember about text completion questions is that you are not required to fill the blanks in order. Indeed, in our example passage it would be difficult for you to find an appropriate word for the first blank without first looking at the other blanks. The second sentence indicates that the American whaling industry was getting larger during this period, so the right choice for the first blank would be a word like *grew* or *blossomed*. In the second sentence, the fact that coastal towns were trying to cash in suggests that the trade was *lucrative* or *booming*. Clearly, by the time you look at the third sentence you will be aware that this was a glorious age for the whaling industry, which would therefore have *spawned* or *produced* its greatest legends.

After you finish filling in all of the blanks, quickly read back through the sentence and make sure that your selections produce a passage that is coherent and grammatical. The tone and logic of the passage should remain consistent, even if it is not the most elegant piece of prose ever written. Above all, relax and allow yourself to work slowly and systematically through text completion exercises. Once you break them down into their constituent parts, they are easy to handle!

Numeric Entry

The Educational Testing Service developed numeric entry questions in part as an alternative to the standard multiple-choice format. A numeric entry exercise poses a question and asks you to enter your answer into a box. The precise format for entering data is described in the directions preceding the question, which will appear as follows:

For a single answer box, type a number in the answer box using the keyboard.

- *First, click on the answer box—a cursor will appear in the box—and then type a number.*
- *To erase a number, use the Backspace key.*
- *For a negative sign, type a hyphen. For a decimal point, type a period.*
- *To remove a negative sign, type the hyphen again and it will disappear; the number will remain.*

- *Round your answer if a question so indicates; otherwise, enter the exact answer.*
  For a fraction, type the numerator and the denominator in their respective boxes.
- *For a negative sign, type a hyphen. A decimal point cannot be used in a fraction.*
- *Fractions do not need to be reduced to lowest terms.*

The content of the numeric entry questions will be the same as for problem-solving and quantitative comparison questions. You will not be allowed to use a calculator.

Your approach to numeric entry questions should be roughly the same as for problem-solving questions. The only difference is that numeric entry questions will require you to produce an exact answer, whereas you will occasionally be able to estimate your way to the correct answer choice on a problem-solving exercise. Before you begin working, be sure to read the question in its entirety. Numeric entry questions are often two or three sentences long, and may require several calculations.

After you have read the whole question, look down at the answer box. There will often be a label next to the box (for instance mph, $, or meters^2) indicating units. If you are confused about what the question is asking, looking at the units required in the answer is often a good hint. It is common for numeric entry questions to contain some superfluous information, so make sure you are only answering the specific question that has been asked; otherwise, you may find yourself doing unnecessary work.

One of the trickier aspects of the numeric entry format involves rounding. Some exercises will not require you to round your answer, while others will make a specific command regarding rounding. Make sure that you know the names of all the place values before you sit for your GRE. Because rounding is often required on numeric entry question, the answer you find may be either an infinitely repeating or extremely long decimal. Do not be alarmed if your calculations produce such a number. If a question does not ask you to round, you will need to provide an exact answer.

Once you have completed the problem, look back over the question and determine whether your answer is reasonable. If possible, you may want to work backwards in the same manner as you would on a problem-solving exercise. It also may be a good idea to

perform a quick estimate to ensure that your answer falls within a range of reasonable solutions.

Let's take a look at an example question:

John has 15 red socks and 11 blue socks. If he reaches into his sock drawer and pulls out two socks at random, what are his odds of selecting a matching pair? Express in simplest form.

If you were presented with this question on the GRE, you would see two boxes below the question, indicating that the answer is to be expressed as a fraction. The box on top is for the numerator, while the box on the bottom is for the denominator. This problem can be solved by calculating the respective probabilities of selecting a matching red and a matching blue pair of socks. John has a 15 in 26 chance of drawing a red sock first, and then he will have a 14 in 25 chance of selecting another red sock. He has a 11 in 26 chance of selecting a blue sock first, and then he will have a 10 in 25 chance of selecting another blue sock. In total, then, his chance of selecting two red socks is (15/26)*(14/25) or 210/650. His chance of selecting two blue socks is (11/26)*(10/25) or 110/650. Therefore his total chance of selecting a matching pair is 320/650 which can be simplified by dividing both numerator and denominator by 10. You will end by entering a 32 into the numerator box and a 65 into the denominator box.

Practice Test: Section 1

Analytical Writing

Section 2

PRESENT YOUR PERSPECTIVE ON AN ISSUE - 45 minutes

You will have a choice between two Issue topics. Each topic will appear as a brief quotation that states or implies an issue of general interest. Read each topic carefully; then decide on which topic you could write a more effective and well-reasoned response. You will have 45 minutes to plan and compose a response that presents your perspective on the topic you select. A response on any other topic will receive a zero. You are free to accept, reject, or qualify the claim made in the topic you selected, as long as the ideas you present are clearly relevant to the topic. Support your views with reasons and examples drawn from such areas as your reading, experience, observations, or academic studies.

GRE readers, who are college and university faculty, will read your response and evaluate its overall quality, based on how well you do the following:

- consider the complexities and implications of the issue
- organize, develop, and express your ideas on the issue
- support your ideas with relevant reasons and examples
- control the elements of standard written English

You may want to take a few minutes to think about the issue and to plan a response before you begin writing. Because the space for writing your response is limited, use the next page to plan your response. Be sure to develop your ideas fully and organize them coherently, but leave time to reread what you have written and make any revisions that you think are necessary.

Present your perspective on one of the issues below, using relevant reasons and/or examples to support your views.

Topic No: 1

"All government, indeed every human benefit and enjoyment, every virtue, and every prudent act, is founded on compromise and barter."

Topic No: 2

"Democracy is when the indigent, and not the men of property, are the rulers."

Write the topic number of the issue you choose on the line at the top right corner of the answer booklet labeled "Analytical Writing 1: Issue." Plan your response on this page. This page will not be scored. **WRITE YOUR RESPONSE IN THE ANSWER BOOKLET LABELED "Analytical Writing 1: Issue."**

S T O P

IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY CHECK YOUR WORK ON THIS SECTION ONLY.

DO NOT TURN TO ANY OTHER SECTION IN THE TEST.

Section 2

ANALYZE AN ARGUMENT - 30 minutes

You will have 30 minutes to plan and write a critique of an argument presented in the form of a short passage. A critique of any other argument will receive a score of zero. Analyze the line of reasoning in the argument. Be sure to consider what, if any, questionable assumptions underlie the thinking and, if evidence is cited, how well it supports the conclusion. You can also discuss what sort of evidence would strengthen or refute the argument, what changes in the argument would make it more logically sound, and what additional information might help you better evaluate its conclusion. *Note that you are NOT being asked to present your views on the subject*.

GRE readers, who are college and university faculty, will read your critique and evaluate its overall quality, based on how well you

- identify and analyze important features of the argument
- organize, develop, and express your critique of the argument
- support your critique with relevant reasons and examples
- control the elements of standard written English

Before you begin writing, you may want to take a few minutes to evaluate the argument and plan a response. Because the space for writing your response is limited, use the next page to plan your response. Be sure to develop your ideas fully and organize them coherently, but leave time to reread what you have written and make any revisions that you think are necessary.

Discuss how well reasoned you find this argument.

Topic No: xxx

Last year the city of East Lake decided to reallocate limited police resources by no longer responding to burglar alarms in commercial buildings. Since that change took effect, the number of break-ins in commercial buildings in East Lake has increased by 10 percent. In neighboring West Lake, the police continued to respond to burglar alarms in commercial buildings. There, the number of break-ins in commercial buildings declined in the last year by five percent. Therefore, if

Write the topic number of the argument on the line at the top right corner of the answer booklet labeled "Analytical Writing 2: Argument." Plan your response on this page. This page will not be scored. **WRITE YOUR RESPONSE IN THE ANSWER BOOKLET LABELED "Analytical Writing 2: Argument."**

S T O P

IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY CHECK YOUR WORK ON THIS SECTION ONLY.

DO NOT TURN TO ANY OTHER SECTION IN THE TEST.

Verbal Ability
30 Minutes - 38 Questions

Directions - Questions 1-7: Each sentence below has one or two blanks, each blank indicating that something has been omitted. Beneath the sentence are five lettered words or sets of words. Choose the word or set of words for each blank that best fits the meaning of the sentence as a whole.

1. He believed that in order to _____ the problem fully, he would need to understand all of its _____.
(A) solve…positions
(B) comprehend…extreme
(C) experience…thoughts
(D) embrace…nuances
(E) address…intricacies

2. The author's novel was _____ but she managed to develop numerous _____ fully and enjoyably by its end.
(A) thought-provoking…storylines
(B) brief…characters
(C) uninsightful…answers
(D) surprising…plots
(E) long-winded…chapters

3. The rumors were _____ and she welcomed the opportunity to _____ them.
(A) true…repudiate
(B) fabricated…correction
(C) believable…enjoy
(D) odious…refute
(E) pertinent…demystify

4. I was sorry to see her in that _____, she looked so _____.

(A) condition…despondent

(B) situation…arbitrary

(C) state…demure

(D) position…pensive

(E) mood…abstruse

5. The disarray was _____; the office had to be closed for the day so all the furniture could be placed where it belonged, papers could be re-filed and a general cleaning done.

(A) inconsequential

(B) contemptible

(C) severe

(D) intermittent

(E) trifling

6. He told the kids not to be so _____ when he was gone. He was afraid they would _____ the babysitter.

(A) placid…frighten

(B) boisterous…overwhelm

(C) obedient…enrage

(D) truculent…appease

(E) egotistical…endear

7. It was an _____ house with its vaulted ceilings, obviously expensive furniture and extravagant art covering the walls.

(A) off-kilter

(B) obstreperous

(C) odious

(D) obscure

(E) ostentatious

Directions - Questions 8-16: In each of the following questions, a related pair of words or phrases is followed by five lettered pairs of words or phrases. Select the lettered pair that best expresses a relationship similar to that expressed in the original pair.

8. SURGEON: OPERATING ROOM
(A) chiropractor: doctor
(B) novelist: panel
(C) conductor: symphony hall
(D) truck driver: rest stop
(E) fan: performance

9. OPINIONATED: INDECISIVE
(A) diffident: shy
(B) frugal: spendthrift
(C) conspicuous: obvious
(D) thoughtful: thought-provoking
(E) idle: cheerless

10. PLEASED: OVERJOYED
(A) dirty: squalid
(B) thrilled: happy
(C) determined: decided
(D) perceptive: unaware
(E) deliberate: accidental

11. PUNITIVE: PUNISHMENT
(A) spatial: measurement
(B) exhausted: sleep

(C) perplexed: answer
(D) complimentary: praise
(E) inchoate: completion

12. CONSIDERABLE: EXTENSIVE
(A) enormous: vacant
(B) diminutive: microscopic
(C) outlandish: undistinguished
(D) descriptive: straightforward
(E) periodic: constant

13. INSIPID: BOREDOM
(A) tasty: craving
(B) gratuitous: freedom
(C) morose: rebellion
(D) jovial: optimistic
(E) gargantuan: vastness

14. SEDENTARY: SIT
(A) descry: lampoon
(B) espoused: belief
(C) perseverance: endurance
(D) perjury: mendacity
(E) peripatetic: wander

15. QUERULOUS: AMIABLE
(A) sequential: serial
(B) ponderous: insubstantial
(C) illicit: forbidden
(D) pugnacious: truculent

(E) veritable: verifiable

16. ABSTEMIOUS: RESTRAINT

(A) discerning: awareness

(B) servile: aggression

(C) avowal: affirm

(D) exhilarate: enlivened

(E) posture: decorum

Directions- Questions 17-27: Each passage in this group is followed by questions based on its content. After reading a passage, choose the best answer to each question. Answer all the questions following a passage on the basis of what is stated or implied in that passage.

Passage 1

For those of you not in the know in the world of invented languages, Esperanto was created in the late 1800s by a Mr. Ludwik Zamenhof of Poland. Zamenhof bemoaned the tension created by the literal inability of we humans to understand each other. In Esperanto he sought to provide a sort of neutral universal second language that privileged no one linguistically, confining us all only by our ability to be articulate, rather than by our familiarity with whatever language happens to be spoken at a given time.

While not the world-wide form of communication Zamenhof and other Esperantists have hoped for, Esperanto has grown impressively since its inception. Estimates of numbers of speakers range from 100,000 to 2 million, in 115 different countries; native speakers are estimated to number more than 1000. Many books have been translated and written in Esperanto, and two movies have been made in Esperanto – including Incubus starring William Shatner.

Reasons to Learn Esperanto:

It's Easy. A common argument for learning Esperanto is the ease of learning it: it's phonetic, grammatically regular, and a relatively small amount of words can be combined to create additional words -- so you need to know less vocabulary to sound smart than you would in other languages. In addition to being able to be learned many times more quickly than anything else, studies show that learning Esperanto increases people's ability to learn a next language.

You Can Stay in People's Houses for Free. Some of these Esperanto-speakers really put their money where their mouths are when it comes to supporting international understanding. There's a list Esperantists can put themselves on called the *Pasporta Serva*; speak Esperanto and, bang, you can stay with any of those fellow speakers for free. The list currently has around 1350 hosts in more than 85 countries. Does any other language come with that kind of perk?

I am Esperanto. A final reason to pin a green 5-pointed star (symbol of Esperanto) to your shirt and try and learn this crazy human-made language is to support the ideals that motivated Zamenhof to create the thing in the first place. He wanted to help usher in peace among cultures by giving people a place to be on equal footing, at least linguistically. In this time of tensions and divisions between pretty much every group you can find, that seems like a goal worth sharing. So, go ahead and call yourself Esperanto – it means, in Esperanto, "one who hopes."

<u>Some Esperanto Phrases to Use to Impress Your Friends</u>

Hello	Saluton
Good Night	Bonan nokton
I speak Esperanto	Mi parolas Esperanton
I love you	Mi amas vin
You smell like a crocodile	Vi odoras kiel krokodilo

17. According to the author, estimates of Esperanto speakers range from:

(A) 115 to 1000

(B) 100,000 to 2 million

(C) around 1350

(D) 85 to 1350

(E) more than 1000

18. Which of the following is <u>not</u> a reason given by the author for learning Esperanto?

(A) Esperanto speakers can stay in some other speakers' homes for free

(B) It is phonetic

(C) It increases speakers' ability to learn a next language.

(D) It is spoken by most Europeans

(E) It is grammatically regular

19. According to the author, why did Zamenhof create Esperanto?

(A) To help people learn additional languages

(B) To assist people in staying with other speakers around the world

(C) To combine what he thought were the best elements of Spanish and English in one language

(D) To eliminate political differences

(E) To give people a place to be on equal footing and thereby help create peace among cultures

20. According to the author, in how many countries is Esperanto spoken, and how many countries are represented on the *Pasporta Serva*?

(A) 115/ more than 1000

(B) 1350/more than 85

(C) 115/ more than 85

(D) 1350/ more than 1000

(E) 1000/ more than 1350

21. The author writes that "he sought to provide a sort of neutral universal second language that privileged no one linguistically…" Which of the following words is most synonymous with the word "privileged" as used in that sentence?

(A) benefited

(B) hindered

(C) advantage

(D) fortunate

(E) confidential

22. What are Esperanto speakers called?

(A) Esperantos

(B) Esperantis

(C) Esperantists

(D) Esperantons

(E) Esperantins

23. According to the author, what have studies shown about Esperanto?

(A) That it is spoken in 115 countries

(B) That two movies have been made in Esperanto

(C) That it has grown impressively since its inception

(D) That it increases global understanding and communication

(E) That learning it increases people's ability to learn a next language

Passage 2

It could be argued that all American war movies take as their governing paradigm that of the Western, and that we, as viewers, don't think critically enough about this fact. The virtuous hero in the white hat, the evil villain in the black hat, the community threatened by violence; these are the obvious elements of the paradigm. In addition, the hero is highly skilled at warfare, though reluctant to use it, the community is made up of morally upstanding citizens, and there is no place for violence in the community: the hero himself

must leave the community he has saved once the battle is complete. This way of seeing the world has soaked into our storytelling of battle and conflict. It's hard to find a U.S.-made war movie that, for example, presents the enemy as complex and potentially fighting a legitimate cause, or that presents the hero (usually the U.S.) as anything other than supremely morally worthy. It is important to step back and think about the assumptions and frameworks that shape the stories we're exposed to; if we're careless and unquestioning, we absorb biases and world views with which we may not agree.

24. The primary purpose of this passage is to:
(A) analyze an interesting feature of American cinema.
(B) refute the Western paradigm.
(C) suggest a way that war movies could be made better.
(D) suggest that viewers think critically about underlying assumptions in the movies we watch.
(E) explain the Western paradigm.

25. The author claims that it is hard to find a U.S. made movie that "presents the hero (usually the U.S.) as anything other than supremely morally worthy." Does the author imply that she:
(A) believes the hero should always appear to be morally worthy.
(B) believes the hero should never appear to be morally worthy.
(C) believes the hero should be more nuanced and less unconditionally good.
(D) believes the hero is an uninteresting character.
(E) believes the hero is not the U.S.

26. Which of the following is <u>not</u> an example given by the author of an element of the Western paradigm:
(A) Hero highly skilled at warfare
(B) Evil villain in black hat
(C) Everyone riding horses

(D) Community made up of upstanding citizens
(E) Virtuous hero

27. Which of the following is part of the world view, with which we may not agree, that the author implies we might absorb from these movies if we're careless and unquestioning:
(A) Enemies of the U.S. do not ever fight for legitimate causes.
(B) The community is morally bankrupt.
(C) The U.S. is complex.
(D) The U.S. is not skilled at warfare.
(E) The community welcomes violence.

Directions – Questions 28-38: Each question below consists of a word printed in capital letters, followed by five lettered words or phrases. Choose the lettered word or phrase that is most nearly opposite in meaning to the word in capital letters. Since some of the questions require you to distinguish fine shades of meaning, be sure to consider all the choices before deciding which one is best.

28. FACETIOUS:
(A) slender
(B) obsolete
(C) vague
(D) sincere
(E) hidden

29. CASTIGATE:
(A) reward
(B) nearby
(C) repeat
(D) brood
(E) meditate

30. CIRCUMSPECT:

(A) uninterrupted

(B) plodding

(C) reckless

(D) concrete

(E) inferential

31. DISABUSE:

(A) protect

(B) deceive

(C) maltreat

(D) materialize

(E) ensure

32. ASKEW:

(A) unaware

(B) incurious

(C) asinine

(D) perplexed

(E) orderly

33. SERE:

(A) verdant

(B) sightless

(C) jovial

(D) undisciplined

(E) humorless

34. ABERRANT:

(A) similar
(B) atypical
(C) decided
(D) pertinent
(E) normal

35. DEFINITIVE:
(A) deferential
(B) succinct
(C) particular
(D) tentative
(E) deft

36. SALUTARY:
(A) medicinal
(B) farewell
(C) injurious
(D) civilian
(E) martial

37. VEHEMENT:
(A) apathetic
(B) particular
(C) tranquility
(D) pacifist
(E) fervent

38. CLOISTERED:
(A) cosseted
(B) exposed

(C) irreligious

(D) intelligent

(E) mendacious

Quantitative Ability
30 Minutes - 30 Questions

Numbers: All numbers used are real numbers.

Figures:

Position of points, angles, regions, etc. can be assumed to be in the order shown; and angle measures can be assumed to be positive.

Lines shown as straight can be assumed to be straight.

Figures can be assumed to lie in a plane unless otherwise indicated.

Figures that accompany questions are intended to provide information useful in answering the questions. However, unless a note states that a figure is drawn to scale, you should solve these problems not by estimating sizes by sight or by measurements, but by using your knowledge of mathematics

Directions - Questions 1-15: These questions consist of two quantities, one in Column A and one in Column B. You are to compare the two quantities and choose:

A if the quantity in Column A is greater;

B if the quantity in Column B is greater;

C if the two quantities are equal;

D if the relationship cannot be determined from the information given

1. Before Esther paid for the cab, she had 17 percent more money in her wallet than Stella had in hers. After Esther paid for the cab she had 17 percent less money in her wallet than she had had before paying.

The amount Stella has in her wallet	The amount Esther has in her wallet after paying for the cab.

2.

$-n = |-6| - 1$

5	n

3.

$ds \neq 0$

the time required to travel d/3 miles at 3s miles per hour	the time required to travel d miles at 3 miles per hour

4.

$x = 3y - 4$

$y = 2$

x	2

5.

the number of hours in 5 days	the number of days in 17 weeks

6.

4^8	66,000

7.

5^3	3^5

8.

$m > n > 0$

$\frac{4mn}{m}$	$\frac{4mn}{n}$

9.

T is a positive integer

7/9	t/u

10.

1 – 1/32	7/8 + 1/56

11.

x does not = 0

|x|/x	1

12.

2x + 3y > 7

3x + 2y	14

13.

d = 3.01763 and $\boxed{d}$ is the decimal expression for d rounded to the nearest thousandth.

The number of decimal places where *d* and $\boxed{d}$ differ	4

14.

the surface area of a box with a length of 8, height of 4 and width of 3	136

15.

The volume of a cylindrical tank with a height of 20 and a radius of 1 foot	20 feet^3

Directions - Questions 16-30: Each of these questions have five answer choices. For each of these questions, select the best of the answer choices given.

16. If 30 kids on one team average 8 points each, and 20 kids on another team average 7 points each, what is the average of all kids?

a. 7

b. 7.2

c. 7.4

d. 7.6

e. 7.8

17. If $-1/3x + 7 = 4$, what is the value for $1/3x + 3$?

a. 3

b. 6

c. 9

d. 12

e. 15

18. $(2a^2b - 3c^3)(3a^3b + 4c) =$

a. $5a^6b^2 + 12c^4 - 9a^3bc^3 - 12c^4$

b. $5a^5b^2 + 8a^2bc - 9a^3bc^3 + 12c^4$

c. $6a^5b^2 + 8a^2bc - 9a^3bc^3 + 12c^4$

d. $6a^6b^2 + 8a^2bc - 9a^3bc^3 - 12c^4$

e. $6a^5b^2 + 8a^2bc - 9a^3bc^3 - 12c^4$

19. A mother is currently three times as old as her daughter. In fifteen years the mother will be twice as old as the daughter. The mother's present age is:

a. 30

b. 42

c. 45

d. 50

e. 52

Questions 20-25 refer to the following chart

Profile of Staff at Mercy Hospital in City X and Mercy Hospital in City Y
Total Combined Staff: 433

City X (250)		City Y (183)
	Profession	
74	Doctor	55
121	Registered Nurse	87
14	Administrator	9
15	Maintenance	11
6	Pharmacist	5
4	Radiologist	2
2	Physical Therapist	2
1	Speech Pathologist	1
13	Other	11
	Gender	
153	Male	93
97	Female	90
	Age	
24	Youngest	22
73	Oldest	77
	Ethnicity	
51	African American	42
50	Asian American	27

45	Hispanic American	35
47	Caucasian	37
57	Other	42

	Years on Staff	
64	0-5	32
63	5-10	41
57	10-15	67
47	15-20	30
14	20-25	19
5	More than 25	5

	Number of Patient Complaints	
202	0	161
43	1-4	21
5	5-10	1
0	More than 10	0

20. Approximately what percentage of City X hospital staff are doctors?

a. 15

b. 20

c. 25

d. 30

e. 35

21. If a speech pathologist in City Y has 6 patient complaints, how many doctors there have five or more patient complaints?

a. 0

b. 1

c. 21

d. 55

e. It cannot be determined from the information given.

22. Which percentage is greatest?

a. The percentage of Asian Americans to staff as a whole in City X?

b. The percentage of staff members who have been on staff 10-15 years to staff as a whole in City X?

c. The percentage of Doctors to staff as a whole in City X and City Y?

d. The percentage of staff with 1-4 complaints to staff as a whole in City Y?

e. The percentage of Pharmacists to staff as a whole in City Y?

23. If all Caucasian staff members in City Y have been on staff between 5-10 years, how many non-Caucasian staff members in City Y have been on staff 5-10 years?

a. 0

b. 4

c. 37

d. 41

e. It cannot be determined from the information given.

24. Approximately what percentage more staff members in City Y are female than in City X?

a. 5

b. 10

c. 15

d. 20

e. 25

25. According to the chart, is the percentage of staff who have received zero complaints

a. greater in City X than in City Y

b. greater in City Y than in City X

c. the same in City X and in City Y

d. growing in both City X and City Y

e. It cannot be determined from the information given.

26. The cost, in dollars, of shipping x computers to California for sale is 3000 + 100x. The amount received when selling these computers is 400x dollars. What is the least number of computers that must be shipped and sold so that the amount received is at least equal to the shipping cost?

a. 10

b. 15

c. 20

d. 25

e. 30

27. Juice that is normally $3.49 a gallon is on sale at two gallons for $5.99. How much money can be saved by buying 4 gallons at the sale price?

a. $3.00

b. $2.98

c. $1.98

d. $1.50

e. $0.98

28. Which of the following is equal to ¾ of 0.01 percent?

a. 0.75

b. 0.075

c. 0.0075

d. 0.00075

e. 0.000075

29. (10 – 9 – 8 – 7) – (11 – 10 – 9 – 8) =

a. -30

b. 2

c. -2

d. 0

e. -1

30. If 4x – 7 = 9, then 7x =

a. 4

b. 16

c. 28

d. 2

e. 3

Practice Test: Section 2

Verbal Ability –
30 Minutes - 38 Questions

Directions – Questions 1-7: Each sentence below has one or two blanks, each blank indicating that something has been omitted. Beneath the sentence are five lettered words or sets of words. Choose the word or set of words for each blank that best fits the meaning of the sentence as a whole.

1. They chalked their meeting up to _____; it was the kind of lucky thing that could never have happened by design.
(A) preparation
(B) serendipity
(C) extravagance
(D) peculiarity
(E) concatenation

2. He was modest in his _____ and did not _____ a promotion to higher levels of responsibility at work.
(A) dreams…refuse
(B) failures…question
(C) habits…necessitate
(D) vision…challenge
(E) ambition…pursue

3. History did not feel _____ to her. Seeking a more _____ major she decided to study economics.
(A) relevant…topical
(B) important…literary
(C) familiar…theatrical

(D) esoteric…sycophantic

(E) important…trivial

4. She considered herself to be _____ and liked to predict events before they occurred.

(A) precocious

(B) prescient

(C) predated

(D) prefatory

(E) preferential

5. "If the yeti is _____", he asked, "then who made these _____ footprints?"

(A) genuine…invisible

(B) dangerous…massive

(C) imaginary…colossal

(D) welcoming…cavernous

(E) mysterious…unfathomable

6. Elijah noticed that the crowd had _____ and it was possible once again to walk around the museum _____.

(A) thickened…confidently

(B) intensified…on foot

(C) vanished…en masse

(D) dispersed…with ease

(E) startled…convincingly

7. The trip was very _____ and they vowed to each other that they would not take another for the _____ future.

(A) enjoyable…near

(B) unpleasant…so-called

(C) fruitful…distant

(D) dignified…immediate
(E) taxing…foreseeable

Directions – Questions 8-16: In each of the following questions, a related pair of words or phrases is followed by five lettered pairs of words or phrases. Select the lettered pair that best expresses a relationship similar to that expressed in the original pair.

8. QUAGMIRE: PREDICAMENT
(A) rectitude: correctness
(B) plunder: uphold
(C) consideration: aptitude
(D) indifference: trepidation
(E) servile: indenture

9. TRAVEL: FLIGHT
(A) locomotive: vehicular
(B) frugal: economic
(C) triumph: elation
(D) putrid: rank
(E) celebrate: party

10. BONA FIDE: BOGUS
(A) prone: disposed
(B) inexact: ameliorate
(C) reluctant: fervent
(D) pertinent: related
(E) asymmetrical: unbalanced

11. DISQUIET: ANXIOUS
(A) hopeful: exultant

(B) desperation: despondent
(C) affluent: parsimonious
(D) fetid: squalor
(E) derision: laughter

12. RUEFUL: REGRET
(A) disappointed: distracted
(B) adulterated: tainted
(C) habituated: accustomed
(D) snide: amiable
(E) mortified: shame

13. INTERPRET: DECODE
(A) bewilder: confusion
(B) enrapture: adore
(C) escapade: mischievous
(D) arrange: organize
(E) deliberate: unplanned

14. VORACIOUS: EAT
(A) rapacious: viand
(B) livid: incensed
(C) turbulence: confusion
(D) serenity: equanimity
(E) lethargic: slumber

15. HACKNEYED: CLICHED
(A) affable: jovial
(B) dehydrated: thirst
(C) prominent: undiscovered

(D) limpid: offended
(E) idiosyncratic: eccentricity

16. LABORIOUS: EFFORTLESS
(A) agrarian: urbane
(B) exultant: miserable
(C) stealthy: promptly
(D) relevant: germane
(E) phobia: phantasm

Directions – Questions 17-27: Each passage in this group is followed by questions based on its content. After reading a passage, choose the best answer to each question. Answer all the questions following a passage on the basis of what is stated or implied in that passage.

Passage 1

We all know the drill: the consequences of urban sprawl, American's long work hours, and devotion to television and the internet are doing nothing good for American communities.

A new study by sociologists at Duke University and the University of Arizona adds more grist to this mill, noting that Americans in 2004 had smaller networks of people with whom they talk about matters important to them than they did in 1985. (*Social Isolation in America: Changes in Core Discussion Networks Over Two Decades*, American Sociological Review, June 2006.) In 1985, Americans had three confidants, in 2004, we averaged two. The number of Americans who had no one with whom to talk about important matters almost doubled in 2004 to over 25%. Increasingly, most confidants are family: in 2004, 80% of people talked only to family about important matters and about 9% people depended totally on their spouse.

This decrease in confidants is part (a result) of the same trend that's leaving fewer people knowing their neighbors or participating in social clubs or public affairs than in the past

(phenomena noted in the book Better Together: Restoring the American Community by Robert Putnam and Lewis Feldstein). We know a lot of people, but not necessarily very well.

Left to our own devices and cultural trends then, we seem to be moving in an unpleasant direction. Communities are formed ad hoc, around specific shared individual interests. This wouldn't be bad, of course, except that those communities seem to exist only within the constraints of those shared interests, and don't develop into close and meaningful relationships. The transient and specific nature of many of our relationships today can keep us socially busy without building the lasting relationships and communities that we want.

So what do we do about it if we want to change things? Harvard University's School of Government put together 150 ways to increase what they call "social capital" (the value of our social networks). Among their suggestions are: support local merchants; audition for community theater or volunteer to usher; participate in political campaigns; start or join a carpool; eat breakfast at a local gathering spot on Saturdays; and stop and make sure the person on the side of the highway is OK.

17. According to the author, which of the following was true in 2004:
(A) The average American had three confidants and 9% of people depended totally on their spouse for discussion of important matters.
(B) The average American had two confidants, and 80% of people discussed important matters only with their spouses.
(C) The average American had two confidants, and 9% of people discussed important matters only with family members.
(D) The average American had two confidants, and 80% of people discussed important matters only with family members.
(E) The average American had three confidants, and 80% of people discussed important matters only with family members.

18. The author argues that the transient nature of many of today's relationships is problematic because:

(A) we don't share specific interests

(B) we don't know many people

(C) it prevents us building lasting relationships and communities

(D) we have too much social capital

(E) we talk to too many people about private matters

19. Which of the following are some of the causes to which the author attributes problems in American communities:

(A) too much homework and devotion to television

(B) devotion to television and decline of sports team membership

(C) long work hours and too much homework

(D) urban sprawl and decline of sports team membership

(E) urban sprawl and long work hours

20. Which of the following is not something the author states was suggested by Harvard University as a way to increase social capital:

(A) eat breakfast at a local gathering spot

(B) join a bowling team

(C) support local merchants

(D) join a carpool

(E) audition for community theater

21. In what year was the Duke University study cited by the author published?

(A) 2006

(B) 2000

(C) 1985

(D) 2002

(E) 2004

22. How many ways did Harvard University's School of Government suggest to increase social capital?

(A) 25

(B) 80

(C) 100

(D) 150

(E) 200

23. According to the author, "social capital" means which of the following:

(A) the value of our social networks

(B) the number of confidants with whom we share information

(C) the value we place on friendships outside family members

(D) the number of activities in which we engage

(E) the difference between our relationships in 1985 and 2004

Passage 2

In the American Southwest of the late 1800s, the introduction of barbed wire fencing led to fierce disputes between ranchers and farmers, both eager to protect their rights and their livelihood. The farmers were the clear winners of the two groups, and the barbed wire fences stayed and proliferated. Barbed wire proved to be ideal for use in western conditions; it was cheaper and easier to use than the alternatives of wood fences, stone walls or hedges. Within a few decades all the previously open range land became fenced-in private property. This change was so dramatic to the western culture that some consider the introduction of barbed wire fencing to be the event that ended the Old West period of our history.

24. According to the author, which group supported the use of barbed wire fences?

(A) the ranchers

(B) the farmers

(C) both the ranchers and the farmers

(D) neither the ranchers nor the farmers

(E) the American Southwest

25. According to the author, what do some believe the introduction of barbed wire ended?

(A) the disputes between the farmers and the ranchers

(B) the controversy over whether wood fences or stone walls were better

(C) the Old West period of our history

(D) the livelihood of the farmers

(E) the existence of public property

26. Which of the following did the author not imply would have been found in the Old West prior to the introduction of barbed wire fencing?

(A) no fencing in some places

(B) wood fences

(C) hedges

(D) brick walls

(E) stone walls

27. According to the author, when did the introduction of barbed wire fencing occur?

(A) the late 16th century

(B) the late 17th century

(C) the late 18th century

(D) the late 19th century

(E) the late 20th century

Directions – Questions 28-38: Each question below consists of a word printed in capital letters, followed by five lettered words or phrases. Choose the lettered word or phrase that is most nearly opposite in meaning to the word in capital letters.

Since some of the questions require you to distinguish fine shades of meaning, be sure to consider all the choices before deciding which one is best.

28. ACUMEN:
(A) veracity
(B) incredulity
(C) foolishness
(D) phenomenon
(E) departure

29. FALLIBLE:
(A) upright
(B) perceptive
(C) dexterous
(D) perfect
(E) vigilant

30. DECREPIT:
(A) vigorous
(B) praiseworthy
(C) ingenuous
(D) literal
(E) stationary

31. TRANSITORY:
(A) stationary
(B) pedestrian
(C) energetic
(D) piqued

(E) permanent

32. PITHY:
(A) smooth
(B) verbose
(C) unsightly
(D) horizontal
(E) crowning

33. SUSCEPTIBLE:
(A) innocent
(B) impervious
(C) uninteresting
(D) undetectable
(E) vicarious

34. WATERLOGGED:
(A) desiccated
(B) afloat
(C) adrift
(D) ravenous
(E) inebriated

35. FINITE:
(A) incomplete
(B) unhealthy
(C) gentle
(D) unlimited
(E) cumbersome

36. EGRESS:

(A) mammalian

(B) strenuous

(C) entrance

(D) modest

(E) verminous

37. JUDICIOUS:

(A) judgmental

(B) conciliatory

(C) indiscriminate

(D) meditative

(E) sprightly

38. ADROIT:

(A) incorrect

(B) explanatory

(C) dexterous

(D) prone

(E) ungainly

Quantitative Ability
30 Minutes - 30 Questions

Numbers: All numbers used are real numbers.

Figures: Position of points, angles, regions, etc. can be assumed to be in the order shown; and angle measures can be assumed to be positive.
Lines shown as straight can be assumed to be straight.
Figures can be assumed to lie in a plane unless otherwise indicated.
Figures that accompany questions are intended to provide information useful in answering the questions. However, unless a note states that a figure is drawn to scale, you should solve these problems not by estimating sizes by sight or by measurements, but by using your knowledge of mathematics.

Directions – Questions 1-15 :Each of these questions consist of two quantities, one in Column A and one in Column B. You are to compare the two quantities and choose:
A if the quantity in Column A is greater;
B if the quantity in Column B is greater;
C if the two quantities are equal;
D if the relationship cannot be determined from the information given

1.

The number of minutes in 3 and 1/2 hours	The number of days in 30 weeks

2.

4^8	8^4

3.

Probability of selecting a given name out of a hat containing 17 names	.07

4.

-x = | -9 | - 2

x	7

5.

X is a positive integer

x/y = 1/6

6	y

6. Before the Smiths added on to their house, their square footage was 25% less than that of the Wilsons. After the Smiths added on to their house, their square footage was 25% more than it had been.

Square footage of the Smiths' house	Square footage of the Wilsons' house

7.

x < y < -1

(2x – 2y)(4x + 4y)	$x^2 – y^2$

8.

s and t are integers

2IsI = 2t

s	t

9.

x and y are positive

$x/y > 3$

0.2x	y

10.

-2^6	$(-2)^6$

11.

Turtle travels at 3 mph

Rabbit travels at 25 mph

Time for turtle to travel 100 miles	Time for rabbit to travel 15 miles

12.

$n^2 = 25$

n	5

13. The calories in 6 cups of coffee with 3 spoons of sugar equals the calories of 4 cups of coffee and 5 spoons of sugar

calories in a cup of coffee	calories in a spoon of sugar

14.

$x < 0$

x^2	x^3

15. The sum of three consecutive numbers is 114

39	the smallest number of the three

Directions- Questions 16-30: Each question has five answer choices. For each of these questions, select the best of the answer choices given.

16. A television is on sale for $2300 which is 20% off the original price. What was the original price?

a. $2700

b. $2760

c. $2775

d. $2800

e. $2875

17. What is 0.145/145?

a. 1

b. 0.1

c. 0.01

d. 0.001

e. 0.0001

18. Tia worked 7 hours last week and made $98. If she works 13 hours next week at the same pay rate, how much will she make?

a. $172

b. $182

c. $192

d. $202

e. $212

19. If 8 is 32% of a number, what is 40% of the same number?

a. 10

b. 14

c. 20

d. 24

e. 30

20. Which of the following fractions is equivalent to 0.3125?

a. 1/3

b. 3/10

c. 5/16

d. 7/22

e. 9/28

Questions 21 – 25 refer to the following chart.

Comparison of Student Body at Middlebrook College in Year X and Year Y

Year X		Year Y
	Student Body	
2568	Freshmen	2601
2530	Sophomores	2614
2516	Juniors	2499
2403	Seniors	2490
10,017	Total Student Body	10,204
	Major	
3109	English/Literature	2687
3867	Political Science/ Government	4107
376	Hard Science	397
455	Foreign Language	432
503	Anthropology	472
1707	Other	2109

Grade Point Average

1.7	Lowest	1.3
4.0	Highest	4.0
3.6	Average	3.4

Extracurricular Activity

438	Play on Sports Team	463
51	Participate in Student Body Governance	54
270	Belong to a School Club	312
84	Community Service	169
155	Other Activity	173
9019	No Extracurricular Activity	9033

Plans for After College

476	Travel	333
4889	Work	4012
4580	Further Education	5813
72	Other	46

21. Approximately what percentage of the student body in Year Y are either freshmen or sophomores?

a. 50

b. 51

c. 52

d. 53

e. 54

22. Approximately what is the percentage increase in Political Science/ Government majors in Year Y from Year X?

a. 1

b. 3

c. 6

d. 7

e. 9

23. In Year Y, if all sophomores are English/ Lit majors, and the rest of the English/ Lit majors are freshmen, how many freshmen are majors other than English/ Lit?

a. 7517

b. 2687

c. 2601

d. 2528

e. 4107

24. Which category's change from Year X to Year Y represents the biggest percentage difference?

a. Students playing on a sports team

b. Students participating in student governance

c. Students belonging to a student club

d. Students involved in community service

e. Students participating in no extracurricular activity

25. Which of the following is true in Year X?

a. Most seniors participated in no extracurricular activity.

b. Most seniors participated in some extracurricular activity.

c. Most seniors played on a sports team.

d. Most seniors belonged to a school club.

e. It cannot be determined from the information given.

26. If a rectangle's length and width are doubled, by what percentage does its area increase?

a. 20

b. 80

c. 160

d. 240

e. 300

27. If $3/s = 7$ and $4/t = 12$, then $s - t =$

a. -1/12

b. -1/7

c. 2/12

d. 2/7

e. 2/21

28. There are 12 ounces in 3/4 of a pound. How many ounces are there in 7 and 5/8 pounds?

a. 92

b. 102

c. 112

d. 122

e. 132

29. If the value of ABC Corporation stock rises from $31 per share to $35 per share, what is the approximate percent of the increase?

a. 16

b. 12.9

c. 6.9

d. 26

e. None of the above

30. Which of the following is greatest?

a. 4/5 of 80

b. 20% of 20

c. 7% of 1400

d. 32 + 4

e. 38 + 59

Answer Key

Verbal Ability

Section 1		Section 2	
Number	Answer	Number	Answer
1	e	1	b
2	b	2	e
3	d	3	a
4	a	4	b
5	c	5	c
6	b	6	d
7	e	7	e
8	c	8	a
9	b	9	e
10	a	10	c
11	d	11	b
12	b	12	e
13	a	13	d
14	e	14	e
15	b	15	a
16	a	16	b
17	b	17	d
18	d	18	c
19	e	19	e
20	c	20	b
21	a	21	a
22	c	22	d
23	e	23	a
24	d	24	b
25	c	25	c

26	c	26	d
27	a	27	d
28	d	28	c
29	a	29	d
30	c	30	a
31	b	31	e
32	e	32	b
33	a	33	b
34	e	34	a
35	d	35	d
36	c	36	c
37	a	37	c
38	b	38	e

Quantitative Ability

Section 1		**Section 2**	
Number	Answer	Number	Answer
1	a	1	c
2	a	2	a
3	b	3	b
4	c	4	b
5	a	5	d
6	b	6	b
7	b	7	a
8	b	8	d
9	d	9	d
10	a	10	b
11	d	11	a
12	d	12	d

13	b	13	c
14	c	14	a
15	a	15	a
16	d	16	e
17	b	17	d
18	e	18	b
19	c	19	a
20	d	20	c
21	a	21	b
22	c	22	c
23	b	23	d
24	b	24	d
25	b	25	a
26	a	26	e
27	c	27	e
28	e	28	d
29	b	29	b
30	c	30	c

Verbal Ability Answer Explanations

Section 1

1. The correct answer is (e). Answer (a) is incorrect because it is not logically correct to speak of a problem's "positions." Answer (b) is incorrect because "all of its extreme" is not grammatically correct. Answer (c) is incorrect because it is not logically correct to speak of a problem's "thoughts." Answer (d) is grammatically correct, but because it is less common to "embrace" a problem than to "address" a problem, answer (e) is the better answer.

2. The correct answer is (b). Answers (a), (d) and (e) are incorrect because the conjunction "but" in the sentence suggests that the second half happened despite the first half; in this answer, it doesn't logically make sense to say that numerous storylines were developed despite the thought-provoking nature of the book, that numerous plots were developed despite the surprising nature of the book, or that numerous chapters were developed despite the long-winded nature of the book. Answer (c) is incorrect because the second word, "answers," does not make sense in the context of the sentence. Answer (b) correctly links the two halves of the sentence: despite the brevity of the book, the author was able to develop numerous characters.

3. The correct answer is (d). Answer (a) is incorrect because one would not repudiate true rumors. Answer (b) is incorrect; the phrase "to correction them" is not grammatically correct. Answer (c) is grammatically correct but does not make as much logical sense as answer (d). Answer (e) is incorrect; one does not demystify rumors.

4. The correct answer is (a). Answers (b) and (e) are incorrect because one does not "look" arbitrary or abstruse. Answers (c) and (d) are grammatically correct, but answer (a) is the better answer because it explains why the speaker was sorry to see the object of the sentence: because she was despondent.

5. The correct answer is (c). Answers (a) and (e) are incorrect because they suggest the disarray was minor; the opposite of the meaning suggested by the rest of the sentence. Answers (b) and (d) are incorrect because they offer information about the disarray that is not relevant to the rest of the sentence.

6. The correct answer is (b). Answers (a) and (c) are incorrect because placid and obedient children are easy to care for, and would not logically be expected to frighten or enrage caretakers. Similarly, answers (d) and (e) are incorrect because truculent and egotistical children might be difficult to care for and would not logically be expected to appease or endear themselves to caretakers. Answer (e) is furthermore grammatically incorrect.

7. The correct answer is (e). All the adjectives describing the house and the things in the house suggest a showy and grandiose home; ostentatious is the only answer choice that fits this meaning.

8. The correct answer is (c). The relationship sought is one of a professional to the place in which he/she performs his/her professional work. The only answer that has that relationship is that of conductor to symphony hall.

9. The correct answer is (b). The relationship sought is that of antonyms. The only answer that has that relationship is that of frugal to spendthrift.

10. The correct answer is (a). The relationship sought is one of an adjective to another adjective that is a stronger form of the first word. The only answer that has that relationship is that of dirty to squalid.

11. The correct answer is (d). The relationship sought is one of an emotional state to the action taken as a result of being in that state. The only answer that has that relationship is that of complimentary to praise.

12. The correct answer is (b). The relationship sought is that of synonyms. The only answer that has that relationship is that of diminutive to microscopic.

13. The correct answer is (a). The relationship sought is one of an adjective to the state of mind something modified by that adjective creates. The only answer that has that relationship is that of tasty to craving.

14. The correct answer is (e). The relationship sought is one of an adjective to the action which the state of being described by the adjective necessitates. The only answer that has that relationship is that of peripatetic to wander.

15. The correct answer is (b). The relationship sought is that of antonyms. The only answer that has that relationship is that of ponderous to insubstantial.

16. The correct answer is (a). The relationship sought is that of an adjective and an action or state of being exhibited by one accurately described by that adjective. The only answer that has that relationship is that of discerning to awareness.

17. The correct answer is (b).

18. The correct answer is (d).

19. The correct answer is (e). Answers (a) and (b) are incorrect because, although they're benefits the author claims come from learning Esperanto, the author does not state that these are the reasons the language was initially developed. Answers (c) and (d) are incorrect as they were never brought up in the text at all.

20. The correct answer is (c).

21. The correct answer is (a). In the sentence quoted, the author uses "privileged" to mean benefited or favored. Answers (b) and (c) are not meanings of the word privileged in any situation. Answers (d) and (e) are both meanings of the word privileged but are not appropriate in this context.

22. The correct answer is (c).

23. The correct answer is (e). The only answer option about which the author claimed a study had shown something is that Esperanto increased one's ability to learn a next language.

24. The correct answer is (d). The point of the passage is to suggest that viewers should think more critically about assumptions and frameworks (such as the Western paradigm) that underlie the stories in movies they watch.

25. The correct answer is (c). The author recommends that viewers think more critically about frameworks that underlie stories in movies; she argues that, if not, viewers may absorb biases with which they do not agree. An example the author gives of that bias is that it is hard to find a movie in which the hero is not supremely morally worthy. The author's identification of this as a bias implies that she thinks it is not the right choice. Her comment about the difficulty of finding a portrayal of an enemy that allows the enemy to be complex suggests that the author believes that more nuance and less absolutes would be an improvement in the U.S. storytelling of war.

26. The correct answer is (c). The author said nothing about horseback riding.

27. The correct answer is (a). The author suggests that these movies rarely show enemies of the U.S. to be complex or fighting for a legitimate cause.

28. Facetious means something meant to be humorous and not serious. The correct answer, (d) sincere, means the opposite.

29. Castigate means punish. The correct answer, (a) reward, means the opposite.

20. Circumspect means careful and cautious. The correct answer, (c) reckless, means the opposite.

31. Disabuse means to free from error or misconception. The correct answer, (b) deceive, means the opposite.

32. Askew means awry. The correct answer, (e) orderly, means the opposite.

33. Sere means being dry and withered. The correct answer, (a) verdant, means the opposite.

34. Aberrant means something unusual or deviant. The correct answer, (e) normal, means the opposite.

35. Definitive means conclusive. The correct answer, (d) tentative, means the opposite.

36. Salutary means healthful or curative. The correct answer, (c) injurious, means the opposite.

37. Vehement means forceful and impassioned. The correct answer, (a) apathetic, means the opposite.

38. Cloistered means sheltered from the outside world. The correct answer, (b) exposed, means the opposite.

Section 2

1. The correct answer is (b). The word sought is one that describes something lucky that does not happen through design. Answer (b), serendipity, fits this meaning. Answer (a) is incorrect as it means the opposite of the word sought. Answers (c), (d) and (e) do not relate to the rest of the sentence.

2. The correct answer is (e). Answers (a) and (d) are incorrect because their second words suggest he didn't *deny* a promotion when offered him, while the word that best fits the meaning of the sentence will be one that indicates that he didn't *seek* a promotion. Answers (c) and (e) offer words that fit this meaning, but answer (e) is better because ambition fits more logically into the sentence than does habits. Answer (b) is wrong because it is not logically correct to say he was modest in his failures.

3. The correct answer is (a). Answers (b), (c) and (d) are incorrect as they all provide words that do not make logical sense describing an economic major ("literary," "theatrical," and "sycophantic"). Answer (e) is incorrect as it does not make logical sense that one avoiding a major because it felt unimportant would seek a more trivial one.

4. The correct answer is (b) prescient, which means able to anticipate the course of events. Answer (a) means early in development and is incorrect. Answer (c) means preceding in time and is incorrect. Answer (d) means related to a preface or located in front and is incorrect. Answer (e) means showing preference and is incorrect.

5. The correct answer is (c). Answer (a) is incorrect because there is no context in the sentence for someone to discuss invisible footprints; additionally if the footprints were, despite invisibility, known of then it would be possible that the yeti had made them and the question wouldn't make sense. Answers (b), (d) and (e) are incorrect because there is no conflict between the words dangerous and massive, nor welcoming and cavernous, nor mysterious and unfathomable, and the sentence requires such conflict to make sense.

Answer (c) is correct because the sentence appropriately poses the conflict of what could make such colossal footprints if the yeti does not exist.

6. The correct answer is (d). The words sought are something a crowd does that then allows for an individual to walk in a certain way. Answers (a) and (b) are incorrect because a crowd thickening or intensifying does not lead to an individual being able to walk more confidently or on foot. Answer (c) is wrong because if the crowd has vanished, an individual is unable to walk en masse. Answer (e) is incorrect because neither word logically fits the sentence: a crowd does not startle and there is no context in the sentence to speak of the individual walking convincingly.

7. The correct answer is (e). The part of the sentence provided indicates that the trip was such as to make the takers of it vow not to take another for some part of the future. Thus the first word should indicate that the trip was not a pleasant one; for this reason, answers (a), (d) and (e) are incorrect. Answer (b) is incorrect because the second word, so-called, does not logically complete the sentence.

8. The correct answer is (a). The relationship sought is that of synonyms. The only answer that has that relationship is that of rectitude to correctness.

9. The correct answer is (e). The relationship sought is that of something to be done, and one way in which to do that thing. The only answer that has that relationship is that of celebrate to party.

10. The correct answer is (c). The relationship sought is that of antonyms. The only answer that has that relationship is that of reluctant to fervent.

11. The correct answer is (b). The relationship sought is that of a state of mind to the way a person feels when in that state of mind. The only answer that has that relationship is that of desperation to despondent.

12. The correct answer is (e). The relationship sought is that of a state of mind and the emotion experienced when in that state of mind. The only answer that has that relationship is that of mortified to shame.

13. The correct answer is (d). The relationship sought is that of synonyms. The only answer that has that relationship is that of arrange to organize.

14. The correct answer is (e). The relationship sought is that of a state of being and the action that state of being prompts. The only answer that has that relationship is that of lethargic to slumber.

15. The correct answer is (a). The relationship sought is that of synonyms. The only answer that has that relationship is that of affable to jovial.

16. The correct answer is (b). The relationship sought is that of antonyms. The only answer that has that relationship is that of exultant to miserable.

17. The correct answer is (d).

18. The correct answer is (c).

19. The correct answer is (e).

20. The correct answer is (b).

21. The correct answer is (a).

22. The correct answer is (d).

23. The correct answer is (a).

24. The correct answer is (b).

25. The correct answer is (c).

26. The correct answer is (d).

27. The correct answer is (d).

28. Acumen means discernment and good judgment. The correct answer, (c) foolishness, means the opposite.

29. Fallible means capable of making a mistake. The correct answer, (d) perfect, means the opposite.

30. Decrepit means worn-out or weak. The correct answer, (a) vigorous, means the opposite.

31. Transitory means temporary. The correct answer, (e) permanent, means the opposite.

32. Pithy means concise. The correct answer, (b) verbose, means the opposite.

33. Susceptible means impressionable or responsive. The correct answer, (b) impervious, means the opposite.

34. Waterlogged means saturated with water. The correct answer, (a) desiccated, means the opposite.

35. Finite means limited. The correct answer, (d) unlimited, means the opposite.

36. Egress means the place for going out. The correct answer, (c) entrance, means the opposite.

37. Judicious means having sound judgment. The correct answer, (c) indiscriminate, means the opposite.

38. Adroit means clever or dexterous. The correct answer, (e) ungainly, means the opposite.