

A R C O

Everything you need to score high on the

GRE*

Here's What You Get:

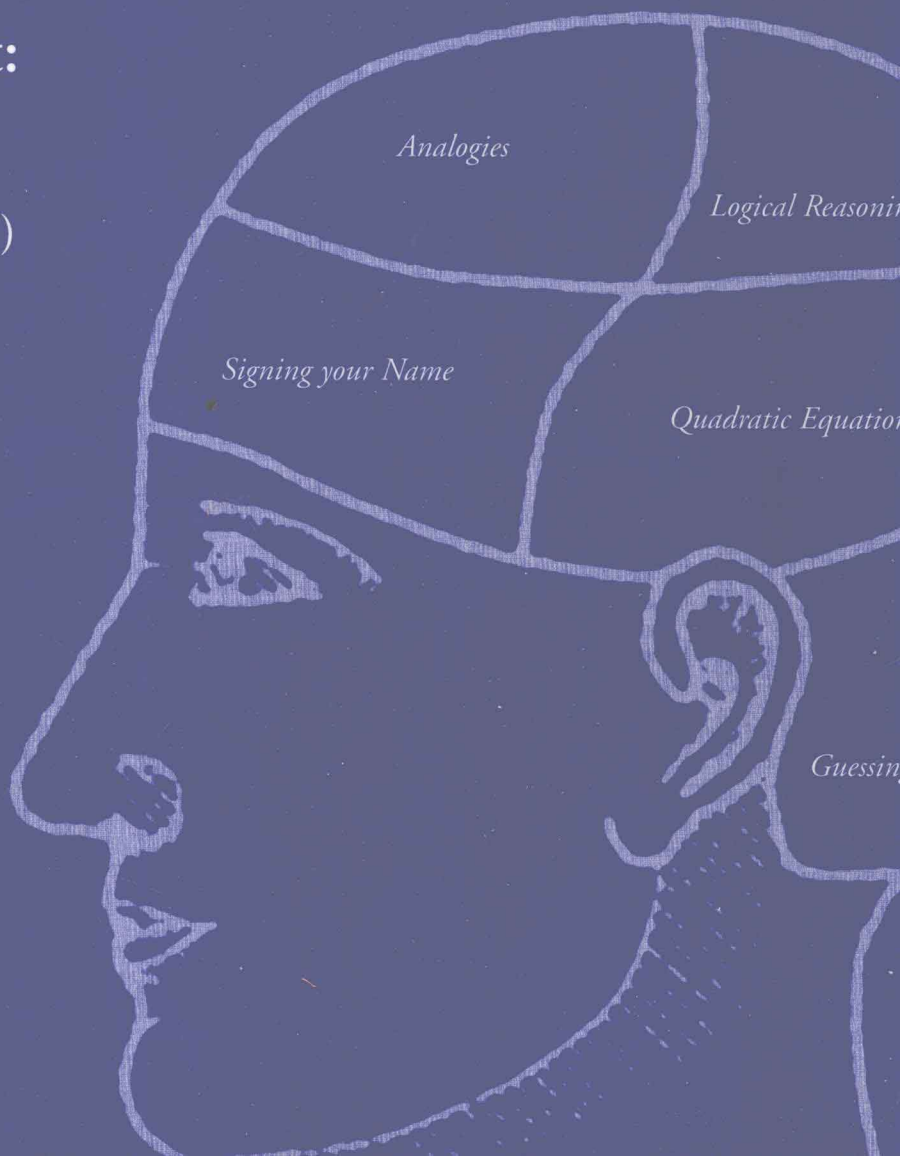
What to expect on the
computer-adaptive test (CAT)

3 practice exams and a
simulated CAT

Expert coaching from a
test-prep pro

10 ways to raise your score,
guaranteed (see inside)

Thomas H. Martinson



ARCO

Everything you need to score high on the

GRE*

7th Edition

Thomas H. Martinson

Macmillan • USA

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BEFORE YOU BEGIN



HOW WILL THIS BOOK HELP YOU?

Taking the GRE is a skill; and as such, it shares some things in common with other skills such as playing basketball or singing opera. These are skills that can be improved by coaching, but ultimately improvement also requires practice. This book gives you both.

- Part One provides essential general information about taking both versions of the GRE—the paper-based test and the computer-adaptive test (CAT). Part Two is a full-length Diagnostic Examination. It can show you where your skills are strong—and where they need some shoring up.
- Parts Three through Five are the coaching program. They analyze each question type and give you powerful strategies for taking on the test on its own terms.
- Part Six contains two full-length sample paper-based GREs followed by a detailed analysis of each question. The detailed analysis is very important because it is there that you can learn from your mistakes.
- Part Seven provides a simulated CAT that you can take even if you don't have a computer. Follow the instructions in this specially designed section and see what it's like to take the computer-based test.
- Part Eight is a full-scale review of GRE mathematics. If your math skills are rusty and need refreshing, this section is for you.

ABOUT THE AUTHOR

Professor Thomas H. Martinson is widely acknowledged to be America's leading authority on test preparation. Educated at Harvard University with an advanced degree and twelve years of postgraduate research, Professor Martinson has published over three dozen books on test preparation. He is routinely invited to lecture on test preparation and related topics at top colleges and universities throughout the United States and abroad.

ALL ABOUT ARCO

ARCO is America's leading publisher of test guides. Our 60 years of helping test-takers raise their scores makes us the longest-running and most reliable authority in the field. With a staff of test-smart coaches, writers, and editors, we track all the latest test developments, research the most effective test-prep techniques, and produce the best-selling study guides and software used successfully by more than 50 million test-takers.

The **10** Top Ways to Raise Your Score

Whether you're taking the paper-based or the computer-based GRE, some test-taking skills will do you more good than others. There are concepts you can learn, techniques you can follow, and tricks you can use that will give you the biggest "bang for your buck." Here's our pick of the Top 10:

- 1. Make a study plan and follow it.** The right GRE study plan will help you get the most out of this book in whatever time you have. *See Chapter 1.*
- 2. Learn the directions in advance.** If you already know what to do for each question type, you won't have to waste precious test time. You'll be able to jump right in and start answering questions as soon as the test begins. *See Chapter 2.*
- 3. Always guess.** On the GRE, it's to your advantage to answer every question. If you can make an educated guess by eliminating one or more answer choices, so much the better. *See Chapter 2.*
- 4. In sentence completions, look for clue words.** These words will reveal the meaning of the sentence and point you in the right direction. *See Chapter 5.*
- 5. In analogy questions, a sentence can make the connection.** Analogies are about word relationships. The best way to figure out the relationship is to summarize it in a sentence. *See Chapter 6.*
- 6. In reading comprehension, read for structure, not details.** When you read GRE passages, don't let the details bog you down. Most of the questions will ask about the structure of the passage rather than specific facts. If you need the facts, they're always there in the passage. *See Chapter 7.*
- 7. If a problem-solving math question stumps you, work backwards from the answers.** The right answer has to be one of the five choices. Since the choices are arranged in size order, starting with (C) will result in the fewest calculations. *See Chapter 9.*
- 8. In quantitative comparisons, consider all the possibilities.** Think what would happen if you plugged in 1, 0, a fraction, or a negative number for x in the expressions you're comparing. *See Chapter 10.*
- 9. For analytical reasoning questions, set up a "bookkeeping" system to summarize the information.** Use your own notational devices or adapt the ones shown in this book. *See Chapter 12.*
- 10. In logical reasoning questions, start by finding the conclusion.** Since the conclusion is the main point of the argument, it's the key to answering every question of this type. *See Chapter 13.*

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PART

ONE

EVERYTHING YOU NEED!

GRE Basics

PREVIEW →

CHAPTER 1

Getting Started

CHAPTER 2

All About the GRE

CHAPTER 3

GRE Questions: A First Look

Summing It Up

Getting Started

You'll Find Answers to These Questions

Can you prepare for the GRE?

What is a GRE study plan?

What's the best study plan for you?

How can you tell if your work is paying off?

CAN YOU PREPARE FOR THE GRE?

This is the question of the day. Can you indeed prepare for a test that purports to test your aptitude for success in grad school rather than your mastery of any particular subject? Of course you can. The GRE is long, and some of its questions are tough, but it's not unconquerable.

There are many ways to prepare and many tricks and tips to learn. One of the most important things to learn is to think like the test-makers so you can find the answers they have designated as best. Once you learn "GRE thinking," you'll be more likely to pick the best answer—and up will go your scores.

WHAT IS A GRE STUDY PLAN?



As you can tell, this book contains a lot of information about the GRE, and you'll need a plan for getting through it. The right study plan will help you manage your time so that you get the most out of this book whether you have three months, three weeks, or only a few days to prepare. It will help you work efficiently and keep you from getting stressed out.

WHAT'S THE BEST STUDY PLAN FOR YOU?

To decide on your study plan, answer these two questions: (1) How long do you have until the test? (2) How much time can you devote to GRE study?



TIME MANAGER STUDY PLANS

PLAN A: ACCELERATED

This plan is your best bet if you have at least 30 days to prepare. You'll probably have to sacrifice a bit on the practice, but you'll cover all of the chapters, learn about each question type, work plenty of sample questions, and take some sample exams. You'll find directions for Plan A at the beginning of each chapter.

PLAN B: TOP SPEED

You'll need to shift into Plan B, the Top Speed Course, if the GRE is coming up in two weeks or less. This superconcentrated study plan includes only the Diagnostic Examination and the critical parts of each chapter. You'll find directions for following Plan B at the beginning of each chapter.

HERE'S THE ANSWER

Is there a secret to preparing for the GRE?

There's no secret, but you have to have a plan. You can follow one of the plans here or create your own. Either way, a plan will keep you on track.

TESTSMARTS

Start with the tough stuff. To make the most of your study time, study the difficult sections first. If you run out of time later, you can just skim the sections that are easy for you.

Here are some suggestions to make your job easier. If you are starting early and the GRE is two or three months away, go for broke. Complete the book from beginning to end. If the GRE is a month or less away and you need a more concentrated course, go for one of the Time Manager plans (see sidebar).

One more thing: Depending on your time frame and how many sections you want to cover, you can customize the plans the work best for you.

HOW CAN YOU TELL IF YOUR WORK IS PAYING OFF?

No matter what plan you choose, you should start by taking the Diagnostic Examination. After you score it, you'll be able to see where you need to concentrate your efforts.

The next step is to see how you do with the exercises at the end of each chapter. Compare your scores to your results on the Diagnostic Exam. Have you improved? Where do you still need work?

When you're ready to take the Practice Examinations, choose the paper-based versions or the simulated CAT. These are just like the tests you'll take, and you should try to simulate test conditions as nearly as you can. After you score a Practice Examination, make another comparison to the chapter exercises and to the Diagnostic Exam. This will show you how your work is paying off.

All About the GRE

You'll Find Answers to These Questions

What is the GRE?
 What's different about the CAT?
 How do you register for the GRE?
 What kinds of questions are on the test?
 How is the test structured?
 What does the answer sheet look like?
 How is the test scored?
 What do smart test-takers know?

WHAT IS THE GRE?

The letters GRE stand for Graduate Record Examinations: standardized exams given at various locations in the United States and around the world. As of this writing, the GRE is offered both in a paper-based version and in a computer-based version called the Computer-Adaptive Test (CAT). The paper-based test is available on certain scheduled dates, and the computer-based test is available by appointment throughout the year. Eventually, the paper-based version will be phased out, and all candidates will take the computer-based version.

The GRE testing program includes a General Test as well as Subject Tests in disciplines such as Biology, Mathematics, and Psychology. This book is devoted to the GRE General Test, the most widely used of the GREs. For the purpose of simplicity, from here on in this book the term GRE will be used to refer to the General Test.

WHAT'S DIFFERENT ABOUT THE CAT?

The CAT differs from the paper-based GRE in that a computer program chooses problems based on a candidate's responses to previous questions. Thus, the CAT is "adaptive" or "interactive." Whereas candidates taking the



TIME MANAGER STUDY PLANS

PLAN A: ACCELERATED

- *Read* "What Kinds of Questions Are on the Test?"
- *Read* "How Is the Test Structured?"
- *Take a look* at the Answer Sheet sample
- *Read* "How Is the Test Scored?"
- *Read* "What Smart Test-takers Know"

PLAN B: TOP SPEED

- *Read* "What Kinds of Questions Are on the Test?"
- *Read* "How Is the Test Structured?"
- *Read* "What Smart Test-takers Know"

paper-based test are presented with a range of questions (including easy, moderately difficult, and difficult items), the CAT selects questions according to each candidate's ability. During a CAT, the computer controls the order in which test items appear, basing its selection on the candidate's responses to earlier items. Because the CAT is interactive, it uses fewer items and takes less time to administer than the paper-based version.

At the risk of oversimplifying, the testing procedure can be described as follows. The computer has access to a large number of test items classified according to question type (graphs, antonyms, reading comprehension, and so on) and arranged in order of difficulty. At the outset, the computer presents you with a couple of "seed" questions, items of average level of difficulty. If you answer those successfully, the program selects for the next question an item of greater difficulty; if you do not answer the "seed" questions correctly, the program lowers the level of difficulty. This process is repeated, with the program continuing to adjust the level of difficulty of questions, until you have provided all the answers that the computer needs to calculate your score.

TESTSMARTS

Get the latest GRE information on the Web. You can get up-to-the-minute GRE information on the World Wide Web. The address is <http://www.gre.org>.

HOW DO YOU REGISTER FOR THE GRE?

Whether you're taking the paper-based GRE or the CAT, first obtain the *GRE Bulletin* from your Career Placement Office or by writing to:

Graduate Record Examinations Program
CN 6000
Princeton, NJ 08541 6000

The *Bulletin* contains registration forms for both test versions. You must register for the paper-based GRE at least six weeks before the scheduled test date. The CAT is given at hundreds of Sylvan Technology Centers, ETS Field Service offices, or other designated test sites nationwide. To schedule an appointment to take the CAT, call the test center or 1-800-GRE-CALL during regular business hours. If you are paying for the test by credit card, you can make the appointment and arrange for payment over the telephone. Otherwise, you will need to submit the registration form by mail and wait two to four weeks for authorization to schedule a test appointment.

Scores for the paper-based GRE are reported to the schools you designate about six weeks following your test date. An advantage of taking the CAT is that scores are ready for mailing ten to 15 days after the test date.

WHAT KINDS OF QUESTIONS ARE ON THE TEST?

Even though the paper-based GRE presents its questions in a test booklet and the CAT presents them on a computer screen, the content of the two test

versions is substantially the same. Consequently, this book is effective preparation for both test forms.

Both forms of the test are divided into separate sections of verbal questions, mathematics questions, and analytical questions.

Verbal Questions

- **Sentence Completions.** Sentence completion questions ask you to choose a word or words that fill in the blanks in a given sentence.
- **Analogies.** Analogies present a pair of words that have some logical relationship. Then the choices present other pairs of words. You have to choose the pair that has the same kind of relationship as the first pair.
- **Reading Comprehension.** Reading comprehension questions relate to a passage that is provided for you to read. The passage can be about almost anything, and the questions about it test how well you understood the passage and the information in it.
- **Antonyms.** Antonym questions present a single vocabulary word. You must pick the answer choice that is most nearly opposite in meaning to the given word.

TEST SMARTS

Move quickly on the easy ones. On the paper-based GRE, the questions in a set usually go from easiest to hardest. Try to go through the easy ones quickly.

Mathematics Questions

- **Quantitative Comparisons.** Quantitative comparison questions test your skills in comparing information and in estimating. You'll see two quantities, one in Column A and one in Column B. The task is to compare the two quantities and decide if one is greater than the other, if they are equal, or if no comparison is possible.
- **Problem Solving.** Problem solving questions present multiple-choice problems in arithmetic, basic algebra, and elementary geometry. The task is to solve the problems and choose the correct answer from among five answer choices.
- **Graphs.** Graph questions present mathematical information in pictorial form. Each graph is followed by questions about it.

Analytical Questions

- **Analytical Reasoning.** Analytical reasoning questions present a situation and some conditions. Based on this information, you must draw logical conclusions.
- **Logical Reasoning.** Logical reasoning questions present an argument that you are asked to analyze. Questions may require you to draw a conclusion, to identify assumptions, or to recognize strengths or weaknesses in the argument.

HOW IS THE TEST STRUCTURED?

The paper-based GRE is divided into seven 30-minute sections. Each section is separately timed. Each test includes two verbal sections, two math sections, and two analytical sections, plus a wild card section. The wild card section may be verbal, or math, or analytical, but it will not count toward your score. The wild card section contains questions being tried out for future GREs. You will not, however, be told which is the wild card section.

Anatomy of a Paper-based GRE

Section	Number of Questions	Time Limit
Verbal	38	30 min.
Sentence Completions	7	
Analogies	9	
Reading Comprehension	11	
Antonyms	11	
Math	30	30 min.
Quantitative Comparisons	15	
Problem Solving	10	
Graphs	5	
Analytical	25	30 min.
Analytical Reasoning	16 or 19	
Logical Reasoning	6 or 9	
Verbal	38	30 min.
Sentence Completions	7	
Analogies	9	
Reading Comprehension	11	
Antonyms	11	
Math	30	30 min.
Quantitative Comparisons	15	
Problem Solving	10	
Graphs	5	
Analytical	25	30 min.
Analytical Reasoning	16 or 19	
Logical Reasoning	6 or 9	
Wild Card	—	30 min.

(Note: The order of the sections varies from administration to administration, and the Wild Card section is not necessarily the last section in the booklet.)

The CAT consists of one verbal section with a 30-minute time limit, one math section with a 45-minute time limit, and one analytical section with a 60-minute time limit. It may also include a wild card section and an identified “research section.” You will not be able to tell which is the wild card section.

Anatomy of a Typical GRE CAT

Section	Number of Questions	Time Limit
Warm Up	—	untimed
Verbal	30	30 min.
Math	28	45 min.
Analytical	35	60 min.
Wild Card	—	— min.
Research Section	—	— min.

The Warm Up period is untimed and contains no questions that count toward a score. Instead, the Warm Up period allows candidates to become familiar with the computer (the mouse in particular) and with the functioning of the CAT program. The wild card section could have any configuration.

WHAT'S THE ANSWER?

What are the advantages of taking the CAT?

Unlike the paper-based test, the CAT is offered all year-round. You can also see your score immediately upon completing the test, and scores are reported to schools much more quickly.

WHAT DOES THE ANSWER SHEET LOOK LIKE?

On the paper-based test, your test materials come in two parts: a booklet of thirty-odd pages containing the test questions and an answer sheet covered with lettered spaces for your responses. The space for marking your answers to a section will look something like this:

15 (A) (B) (C) (D) (E)

Your answer sheet is graded by a machine that “reads” the marks you have made.

Code your answers neatly, completely filling each answer space with a dark pencil mark. Leave no stray marks on the answer sheet. Enter one, and only one, answer per question. Don't worry if the answer sheet has more blanks than your booklet has questions. Leave the extra spaces blank.