HOW TO PREPARE FOR THE

GRADUATE MANAGEMENT ADMISSION TEST

REVISED EDITION

By
Michael Randall, MBA, CPA
Morris Bramson
Morton Selub

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How to Use This Book

This is a test preparation book. It was not designed to be studied straight through. For best results, begin familiarizing yourself with the material by skimming Part 1: "General Description of the GMAT." Then skim the review and explanatory material in Part 2: "Types of GMAT Questions." Read this material more thoroughly only if this material is completely unfamiliar to you.

Next, take Sample Test 1. Grade this test carefully, checking the explanatory answers. Evaluate your results for each test section in order to pinpoint your strengths and weaknesses. Study the review material for those sections in which you scored poorly. Then take Sample Test 2, Sample Test 3, and Sample Test 4 and review the supplementary material including the vocabulary list. At least once before finishing your review, go over the practice material and explanations even for those sections in which you scored high. If you have the time, this extra security is worth the extra effort.

In following this review program, it is essential that you take each sample test as though it were the actual GMAT. This means following the time guidelines printed above each section in each sample test, taking the test at a single sitting, working only on one section of the test at a time, and working in a room where you have no distractions. You should allow yourself only a single ten-minute break in accordance with GMAT procedures at the test centers.

For maximum benefit, you should allow ten weeks to thoroughly prepare for the GMAT. However, even if you have just a single day, you can improve your GMAT scores by judicious use of this book. If you have but limited time, concentrate on learning the directions for each question type and try to take at least one sample test. Even if you don't have an opportunity to thoroughly review your results, the experience of taking a sample test is certain to help you.

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General Description of the GMAT

Time Schedule and Format of the Test

The GMAT is an examination that is designed to measure your quantitative skills and your verbal skills, especially your reading and writing ability and your ability to analyze given situations. Normally the test consists of eight sections with a total of approximately 200 questions. The total time allowed is 240 minutes, or 4 hours. All questions are of the multiple-choice type with five answer choices.

The following table shows the format of a recent GMAT, the time allowed for each section, and the typical number of questions in each section. This format will be followed in each of the sample tests in this book.

Table 1: Format of a Recent GMAT

Question Number	Section	Type of Question	Number of Questions	Number of Minutes
1-25	i	Reading Comprehension (4 passages)	25·	30
26-45	П	Problem-Solving (Math)	20	30
46- 80	III	Data Evaluation	35	30
81-105	IV	 Data Sufficiency 	25	30
106-130	v	Sentence Correction	25	30
131-150	VI	Problem-Solving (Math)	20	30
151-175	VII	"Experimental"	25	30
176-200	VIII	"Experimental"	25	30

Totals: 200 questions 240 minutes

Note: The GMAT is given in several different forms, so the test you take may vary somewhat from the format shown here. For example, the number of questions per section may be different, and the sections may be in a different order. Also, not all of the question types shown here may appear on any given form of the GMAT, and there may be question types other than those shown here.

Note too that sections VII and VIII in this format table are "experimental" sections. In every GMAT the testmakers, for their own purposes, will include two sections of this type. However, these experimental sections will never be labeled as such, nor will they always be sections VII and VIII; in fact, they may be placed anywhere in the test. In each sample test in this book, sections VII and VIII will be simulated "experimental" sections containing a variety of different types of questions like those on recent or current versions of the GMAT.

Scoring the GMAT

Your GMAT score will be based only on six of the eight sections of the test, since two sections are always experimental sections and do not count toward your results. In the sample tests in this book, the simulated "experimental" sections are sections VII and VIII.

When you take the tests, your correct and incorrect answers for the six nonexperimental sections will first be converted into *raw scores* by using the following formula:

raw score = number correct
$$-\frac{\text{number incorrect}}{4} + .5$$

Raw scores are always reported as whole numbers by dropping all digits after the decimal point.

Under this formula you will lose one-quarter of a point for each incorrect answer; however, you will not lose any points for not answering a question. As a result, if you do not know the answer to a question, guessing may not help you and may in fact decrease your score.

You will receive a verbal raw score for your work on the three test sections that measure your verbal skills. In the test format shown in Table 2-1 and used in the sample tests in this book, these are sections I (reading comprehension questions), III (data evaluation questions), and V (sentence correction questions).

You will also receive a quantitative raw score for your work on the three test sections that measure your quantitative skills. In the test format shown in Table 2-1 and used in the sample tests in this book, these are sections II and VI (problem-solving [math] questions) and section IV (data sufficiency questions).

Finally, you will also receive a total raw score for your work on all six of these non-experimental sections.

The verbal and quantitative raw scores can range from 0 to 85. The total raw score can range from 0 to 150.

Your three raw scores are then converted to scaled scores to make it simple to compare scores on different versions of the GMAT; a scaled score on one version of the GMAT is comparable to the same scaled score on other versions of the GMAT. The conversion from raw to scaled scores is accomplished by a statistical method.

Verbal scaled scores can range from 0 to 53; quantitative scaled scores can range from 0 to 57. As a result of the conversion methods, however, verbal or quantitative scaled scores that are below 10 or above 46 are very rare; the average score is 30, and about two-thirds of all test-takers score between 22 and 38.

Total scaled scores can range from 200 to 800. However, these scores are not commonly below 300 or above 700. The average score is 500, and about two-thirds of all test-takers score between 400 and 600.

On page 4 are tables for converting verbal, quantitative, and total raw scores. You can use these tables to find your scaled scores on the sample tests in this book. That way, you can compare your results from one sample test to the next and monitor your progress. Your scaled scores will give you a good approximation of how you would do on the actual GMAT.

In the tables, the raw scores are shown in multiples of 5. For raw scores that are not multiples of 5, interpolate to approximate your scaled score. In the total scaled scores, the third digit has been rounded off to zero in each case.

To evaluate your work on the sample tests, consider a total scaled score above 630 as excellent and a score between 500 and 629 as good. A score between 480 and 500 indicates that you rank at about the midpoint of the range of scores. If your raw score on either the quantitative or verbal sections of the test is below 30, you should undertake further review and practice in that particular area.

Table 2: Conversion Tables for Sample GMAT Tests

Verbal or Quantitative Raw Score	Verbal Scaled Score	Quantitative Scaled Score
85	53	
.80	50	
75 .	47	
65	41	57
60	37	53
55	34	49
50	31	46
45	28	42
40	25	39
35	22	35
30	19	31
25	16	28
20	12	24
15	9 29	21
10 .	6	17
0-5	0-3	10-13

Total Raw Score	Total Scaled Score	Total Raw Score	Total Scaled Score
150	800	80	530
145	795	75	510
140	790	70	480
135	780	65	46 0
130	760	60	440
125	740	55	410
120	710	50	390
115	690	45	370
110	670	40	340
105	640	35	320
100	620	30	300
95	600	25	270
90	580	20	230
85	550	0-10	200

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PART 2 Types of GMAT Questions

Types of GMAT Questions

The GMAT is divided into questions that measure your verbal ability (three of the eight test sections) and questions that measure your quantitative ability (another three of the eight test sections). The remaining two test sections are always experimental sections that can include either verbal or quantitative questions but that in any case do not count toward your score.

The verbal questions and the quantitative questions are each of several types. Different types may be included on successive versions of the GMAT, and even though a particular question type did not appear on the most recent version of the test, it may reappear on a future version. The sample tests in this book are all based on the most recent version of the GMAT; however, in the following pages we will examine not only the question types included in that version, but also certain other types that have appeared on past GMATs and that may reappear on future versions of the test.

Problem Solving and Data Sufficiency Questions

Problem-solving and data sufficiency questions are the two main types of GMAT items that test your ability to handle quantitative materials. The problem-solving questions are usually word problems that deal with situations in business or other real-life settings. Solving these problems requires knowledge of arithmetic, elementary algebra, and some of the simpler concepts of geometry. The data sufficiency questions also require mathematical and problem-solving skills. They test your ability to determine the relevance of given information and to decide at what point sufficient information is available for solving a problem.

In Part 4 of this book, starting on page 321, there is a complete review of all the mathematical topics that you need to master in order to solve these kinds of questions. Included is a section that describes and illustrates data sufficiency questions. In Part 5, starting on page 367, there are practice exercises for every one of the mathematical topics discussed in Part 4, including data sufficiency questions. Following these exercises are detailed explanatory answers for every question. To prepare properly for the GMAT, you should carefully review parts 4 and 5 to make sure that you understand every topic. If you do poorly on any particular types of mathematical questions in the sample tests in this book, pay particular attention to the explanations of those types of questions in these two review sections.

Verbal Ability Questions

Most versions of the GMAT have included question types designed to measure three particular verbal abilities: reading, writing, and the ability to analyze written descriptions of given

situations. The most recent version of the test included just one question type in each of these three areas, and this same format will be followed in the sample tests in this book.

In the most recent version of the GMAT, all of the reading ability questions were of the type called *reading comprehension* questions.

In that same test version, all of the writing ability questions were of the type called sentence correction questions. A similar type of writing ability questions called usage questions has appeared on previous GMATs but was not included on the most recent one; however, it may reappear on future versions of the test.

In the most recent GMAT, all of the questions designed to measure year ability to analyze a given situation were of the type called data evaluation questions. A similar question type called data application questions, like the usage questions, had appeared on previous GMATs but was omitted from the most recent version; however, it may reappear on future versions. (In this book in Sample Tests 2 and 4, data application questions appear in the simulated "experimental" sections.)

Finally, previous GMAT versions had also included a fourth general verbal question category called vocabulary questions, but these too were omitted from the most recent test version. However, they also may reappear on future GMATs. Vocabulary questions were typically divided into antonym, analogy, and sentence completion questions. (In this book in Sample Test 1, antonym questions appear in one of the simulated "experimental" sections.)

READING COMPREHENSION QUESTIONS

In the most recent version of the GMAT, a section consisting of the question type called reading comprehension questions was used to measure reading ability. In this kind of test section, you are given several short reading passages, each of which is followed by a number of questions about its contents. Each question is followed by five answer choices lettered from (a) through (e). In each case, you are to select the choice that best answers the question, based solely on the contents of the passage.

You judge the correctness of an answer on the basis of what is stated or implied in the passage. Even if you doubt whether the information in the passage is factually correct, you should base your answer on what the author says in the passage, not on what you have read elsewhere or what you believe to be true.

On the GMAT, each reading comprehension passage is 300 to 550 words long. The questions asked are of several types. Some ask for specific details or information; others ask for the main idea of the passage; still others ask for identification of supporting points or ideas; and those in a final category ask for the author's purpose in writing the passage, or for a characterization of the author's style or point of view. In each instance, however, the passage contains all the information needed to answer the question.

The reading passages of the GMAT are drawn from several areas. You will find passages from:

Science: biology, chemistry, physics, astronomy, botany, etc.

Social studies: history, anthropology, sociology, government, etc.

Humanities: art, music, literature, philosophy, etc.

Other prose writings: polemical writings (argumentation), plays, biographies, novels, essays, short stories, etc.

Being familiar with these categories will allow you to anticipate the kinds of passages you will find on the test.

You should also familiarize yourself with the instructions for answering the reading comprehension question. The following directions are almost exactly the same as those on past GMATs, although the actual wording may vary slightly.

Directions: Each of the passages in this section is followed by questions based on its content. Read the passage, choose the best answer for each question based on the contents of the passage, and blacken the correct space alongside the corresponding number on the answer sheet. The questions must be answered on the basis of what is stated or implied in the reading passage.

If you familiarize yourself with these instructions before taking the test, you will be able to use more of your time for answering questions. However, you should read the instructions again when you actually take the GMAT to make sure that no changes have been made.

The following passage is typical of those used for actual GMAT reading comprehension questions. The only difference is that it is shorter than most actual passages; otherwise, however, it is a representative example of the kinds of reading material that are actually used. The questions following the passage may be somewhat easier than the average GMAT reading comprehension question, but otherwise they are very much like actual test questions. Read the passage, the questions, and the answers that follow those questions to familiarize yourself with the format of GMAT reading comprehension questions. The following sections of this book will explore a number of ways to answer this kind of question and suggest ways of selecting the method that is best for you.

In the Great Lakes, the life cycles of individual organisms provide a number of fascinating, although brief, scenarios. But together, all the agents of change among the plants, birds, and fish become a full-length play on the massive stage of the Great Lakes basin.

Several important props must be described before we get to the play's narrative. One is the relative shallowness of the lakes, scraped out some 10,000 to 15,000 years ago by receding ice sheets. Another is the size of these inland areas, so enormous that the earth's rotation plays, through the Coriolis force, a major role in the dynamics of the Great Lakes, as it does in the oceans. And because the lakes all outflow either into each other or into the Saint Lawrence River and differ in surface size and in volume, they all have different water residence times.

- 1. Which of the following is (are) directly stated in the passage?
 - L. The Great Lakes flow into the Saint Lawrence River or into each other.
 - II. The Great Lakes basin is massive, but it is not very deep.
 - III. The props needed for a full-length play about the Great Lakes would require a massive stage.
 - (a) I only
 - (b) II only
 - (c) III only

- (d) I and II only
- (e) I, II, and III
- 2. From information given in the passage, we can infer that
 - (a) the birds and fishes of the Great Lakes are unique organisms
 - (b) The Coriolis force pushed the ice sheets back
 - (c) the great Lakes are as large as any of the oceans
 - (d) water residence time is the length of time that a particular particle of water spends in one of the lakes before it flows out of the lake
 - (e) water residence time varies from 10,000 to 15,000 years according to particular lake conditions
- 3. This passage probably is part of
 - (a) a newspaper article on the decline in fish production in the Great Lakes
 - (b) an article on the natural history of the Great Lakes
 - (c) a prospectus offering waterfront land for real estate development
 - (d) a treatise on the Coriolis force
 - (e) a water pollution study, with emphasis on the Great Lakes

ANSWERS

- 1. (d) Item I is directly stated in the last sentence; item II is stated in the last sentence of paragraph 1 and sentence 2 of paragraph 2. Item III is a mishmash of mistaken notions.
- 2. (d) The statement in choice (d) can be inferred from the last sentence, in which the author concludes, "... they all have different water residence times" directly after stating "... because the lakes all ... differ in size and volume ...," thus tying size and volume together with the idea of outflow. We can conclude that any particular particle of water remains (resides) in a lake a longer or shorter length of time depending on the size of that lake and the rate of its outflow, and that "water residence time" is what we call that length of time.
- 3. (b) It can be deduced from the continuous thread dealing with "organisms," "plants," "birds," and "fish," and the geological beginning of the Great Lakes, that the passage is probably part of an article that deals with phenomena that we recognize as part of the concern of natural history.

General Solution Procedure

There are a number of different categories of GMAT reading comprehension questions; however, certain general solution procedures can be applied successfully to most or all of them. Here is one such procedure that many test takers find helpful.

STEP 1: Skim the questions quickly.

Skim over the questions at a moderately fast rate. This quick inspection should help you determine which of the questions ask you about information directly stated in the passage, which ones call for the use of inference, which ones ask you to make evaluations, and so

forth. Once you have skimmed the questions, you should have some idea of what to look for as you read the passage. Make sure you skim the questions quickly! This is a preliminary step, so you shouldn't spend too much time on it. You will be rereading the questions more carefully in a later step.

STEP 2: Read the passage at your fastest rate.

Read the passage at your fastest rate—without skimming. You shouldn't worry about full comprehension of the passage at this point.

The purpose of this step is to give you an idea of the structure of the passage and to familiarize you with the locations of key words, facts, and ideas.

As you read, try to keep in mind the questions you just skimmed. If you come across material that seems related to a question, hold the place with your finger or mark it with a pencil, then go back and check that question's wording.

If the material does indeed apply, mark the question number in the margin of the passage near the relevant part and circle your tentative answer choice under the question.

Resume reading where you left off and repeat the process outlined above whenever you find material that relates to a question.

Don't worry if at this point you can't recall all of the questions or if you can't find materials relating to all of the questions in the passage. You will see the questions and the passage again during the course of later steps.

STEP 3: Reread the questions at your best rate for comprehension, and check the materials you found during your first reading of the passage in Step 2.

The purpose of this step is to enable you to answer the more accessible questions quickly so that you may concentrate on the more taxing questions during the next two steps.

Reread the questions one at a time. This time, as you read, do so at your best rate of reading for comprehension. After you have read a question, think back to the skimming of the passage that you did in Step 2. If during that skimming you noted materials that were relevant to the given question, find those materials again and reread them to see if they provide the answer. If they do indeed do so, mark the answer in the appropriate place on your answer sheet.

If you come to a question for which you did not find any relevant materials when you skimmed the passage, go on to the next question! Don't skim the passage again to find answer material unless you are fairly sure that you know where that material is. If you have no idea where the answer material is located, skimming the passage again to find it can cost you valuable time.

STEP 4: Reread the passage at your best, most comfortable rate for comprehension.

Your purpose during this reading will be different from that of your first reading in Step 2. This time you will already be aware of the overall structure of the passage, so you can concentrate instead on finding subtler meanings. Also, by this time you should have fewer questions to think about since you have probably already answered several of them during Step 3.

This step will be your final complete reading of the passage. This time read the passage at your most comfortable rate for comprehension, but don't stop and backtrack at any point.

As you read, keep in mind the questions that remain unanswered. Then follow the same process as in Step 2: if you come across material that seems related to a question, hold the place with your finger or mark it with a pencil, then go back and check that question's wording.

If the material does indeed apply, mark the question number in the margin of the passage near the relevant part, and circle your tentative answer choice under the question.

Resume reading where you left off and repeat the process outlined above whenever you find material that relates to a question.

Resist the temptation to break off your reading and backtrack. Keep on reading!

STEP 5: Reread the questions that are still unanswered and check the materials that you found when you reread the passage in Step 4.

This step calls for a third reading of the questions that you have not answered yet.

Follow the same process as in Step 3. After you have read a question, think back to your rereading of the passage in Step 4. If during that rereading you noted materials that were relevant to the given question, find those materials again and check to see if they provide the answer. If they indeed do so, mark the answer in the appropriate place on your answer sheet.

The following sections discuss solution procedures for specific categories of GMAT reading comprehension questions.

Solving Special Categories of Reading Comprehension Questions

The five-step general solution procedure just described provides a basic approach for answering most GMAT reading comprehension questions. However, for certain specific categories of these questions, some additional solution techniques need to be kept in mind. These additional techniques can be very helpful because the questions in these categories can sometimes be especially difficult.

There are at least six special categories of GMAT reading comprehension questions: (1) information questions, (2) main idea questions, (3) best title questions, (4) inference questions, (5) author's purpose or application of author's principles questions, and (6) style questions.

INFORMATION QUESTIONS

One very common type of GMAT reading comprehension question asks you to identify or locate information that is directly stated in the passage. This category includes most questions that ask for dates, places, names, and quantities—"Who?" "What?" "Where?" or "When?"

The fact that an answer is directly stated does not necessarily mean that finding it will prove easy. You must be aware that questions will often use synonyms or paraphrasing instead of the terms that are used in the passage. When questions are worded this way, it can be very difficult to identify the relevant passage material. For example, suppose that you were given a reading passage about the value system of the ancient Greeks and that the passage was followed by this question: