

INTRODUCTION

The GMAT, or the Graduate Management Admission Test, is one of the key components of the business school application process. The test evaluates certain basic skills and academic abilities of prospective MBA students, including general knowledge garnered during college and high school; it does not include any business questions. This document provides a thorough introduction to the GMAT, including the test format, question types, categories of knowledge tested, scoring algorithm, and more. It also examines the general business school admissions process.

The GMAT consists of three sections: Analytical Writing Assessment, Quantitative, and Verbal. The first section requires the student to compose two essays, while the Quantitative and Verbal sections are multiple-choice. The multiple-choice sections of the test are given in a Computer Adaptive format: the exam actually adapts itself to each student as the student takes the test. The exam begins with a random question but the computer chooses each subsequent question based upon the responses the student has given to that point in the test. Later in this document, we discuss all of the test sections, as well as the Computer Adaptive format, in detail.

The GMAT is administered 6 days a week, 52 weeks per year, for a fee of \$250. While it isn't typically offered on Sundays or holidays, certain testing sites may provide accommodations for religious purposes; check www.mba.com for these and other details about how to register for the exam. Essentially, you can take the GMAT whenever you want, though you are limited to one test in any 31-day period, with a maximum of five tests per 12-month period. (If you happen to score an 800, you won't be allowed to take the test again until your score expires 5 years later!)

All together, the test itself takes 3 hours and 46 minutes: 60 minutes for the Analytical Writing Assessment, 75 minutes for the Quantitative Section, 75 minutes for the Verbal Section, and two 8-minute breaks. The sign-in security process and other procedures, such as selecting schools to receive score reports, can add up to an hour to the process.

THE FORMAT OF THE EXAM

The GMAT is comprised of three separate sections: the Analytical Writing Assessment, the Quantitative section, and the Verbal section. There is an optional break between each section.

<i>Section</i>	<i>Time Limit</i>	<i># of Questions</i>
Analytical Writing Assessment		
Analysis of an Issue	30 minutes	1
Analysis of an Argument	30 minutes	1
Optional Break	8 minutes	n/a
Quantitative Section	75 minutes	37
Optional Break	8 minutes	n/a
Verbal Section	75 minutes	41

Analytical Writing Assessment Format

The GMAT begins with the Analytical Writing Assessment (AWA), which consists of two essays that are scored separately from the rest of the multiple-choice test. The two essays — Analysis of an Issue and Analysis of an Argument — can appear in either order and have a time limit of 30 minutes each.

Essay scores are based upon several factors:

1. **Analytical reasoning**, including the ability to establish a thesis (take a position on the issue at hand) and develop your position with relevant examples and reasons
2. **Presentation of your ideas**, including appropriate organization of the information (an introduction, body paragraphs with clear main points, a conclusion) and appropriate word choice to convey your ideas in a clear and crisp manner
3. **Command of the English language**, including grammar, spelling, punctuation, and vocabulary (note: some accommodation is given to examinees whose first language is not English)

The Analysis of an Issue Essay Type

The Issue essay provides a one or two sentence “prompt” in the form of a quote. You are asked to take a position on the given prompt, based upon your own opinions, life experiences, and knowledge. For example, an Issue prompt might say:

“In a company, it is preferable to have one person who is responsible for making the final decision on a matter rather than a committee that must reach a consensus in order to make a final decision.”

In an essay, you would be expected to establish a thesis, stating whether you agree or disagree with the prompt, and explain why you believe this is the case, using relevant, real-world examples (events that have actually taken place) to support and further explain your reasoning. You are also expected to acknowledge the complexity of the given issue; there is no one position that is always right. For instance, a test-taker might write, “While it is sometimes necessary to have one person responsible for making the final decision, in my experience, it is often better to use a consensus approach because the entire team will be more likely to support the final decision fully.” The test-taker might then provide a specific instance of consensus decision making from his or her work history, along with the positive outcome that was achieved as a result.

The Analysis of an Argument Essay Type

The Argument essay provides a one paragraph prompt in the form of an argument, with a conclusion and some premises intended to support that conclusion. The argument prompt is often very similar to the Critical Reasoning arguments that appear on the Verbal portion of the exam. You are asked to indicate whether the argument is well-constructed (and it will not be well-constructed or there wouldn't be much of an essay to write!) and expected to describe and discuss flaws as well as suggest fixes.

For the Argument essay, you are *not* asked to provide your opinion as to the “right” conclusion or the best way to achieve the given conclusion. For example, if the argument says that a company plans to increase its profitability by firing half of its workers to reduce the amount it pays out in salaries, your task is *not* to say that this is a terrible plan to increase profitability, or that the company should do something else to improve profitability. Your task is simply to show that the author of the argument has not provided sufficient evidence to support the claim that action A (firing half of the workers) will actually lead to conclusion B (increased profitability). It will always be the case that the evidence provided is not fully sufficient; otherwise, it would be a very short essay.

For instance, the author has not discussed the potential risks of such a plan. The test-taker might write: “The author assumes that there are not significant negative consequences to the plan, consequences that could hinder the goal to improve profitability. Can the company still be as productive after losing half of the workers? Will the remaining workers demand higher salaries to compensate for the extra work they have to do, or simply quit? In order to solidify the argument, the author needs to address concerns about the potential risks that are tied directly to the plan.”

Optional Break #1

Test-takers are offered two optional 8-minute breaks. The first occurs between the AWA and Quantitative sections. If you would like to take the break, raise your hand, and a proctor will escort you out of the testing room (you cannot stay in the testing room during the break). If you do not want to take the break, select the option on the screen to skip it.

It is strongly recommended that you take advantage of this time. If nothing else, it is important to have a small mental break from the stresses of the exam. This also gives you an opportunity to have something to eat or drink, to stretch, and to refresh yourself before beginning the next section.

Quantitative Section Format

Following the AWA is the Quantitative section, during which you will be asked to answer 37 questions in 75 minutes (on average, about 2 minutes per problem). The quantitative questions will come in two different formats, Problem Solving and Data Sufficiency, and the two question types can be presented in any order. Test-takers are generally offered between 20 and 22 Problem Solving questions and between 15 and 17 Data Sufficiency questions.

Both question types can vary from quite easy to extremely difficult, but every problem has a solution method that will take two minutes or less, though not everyone will discover or be capable of executing that method in that time-frame. In general, as questions become more difficult, two things will separate those who get the question right from those who get it wrong: knowledge of the quantitative content being tested and knowledge of the optimal solution method. Timing strategies will be discussed in more detail later in this document.

Problem Solving

Problem Solving questions require you to set up and complete any necessary calculations in order to find a specific numeric or algebraic answer, which will be located among five answer choices provided with the problem. An example of a Problem Solving question and solution appears below.

Problem:

17^{27} has a units digit of:

- A) 1
- B) 2
- C) 3
- D) 7
- E) 9

Solution:

When raising a number to a power, the final units digit is influenced only by the units digit of that starting number. For example 14^2 ends in a 6 because 4^2 also ends in a 6.

17^{27} will therefore end in the same units digit as 7^{27} . The units digit of consecutive powers of 7 follows a distinct pattern; your task is to find that pattern:

<i>Power of 7</i>	<i>Units digit</i>
7^1	7
7^2	9
7^3	3
7^4	1
7^5	7 (repeat!)

The pattern repeats after 4 powers, so every multiple power of 4 will end in the same units digit. For example, the units digit of 7^8 is 1, and the units digit of 7^{12} is also 1. Find the largest power of 4 that is still smaller than your desired exponent, 27. The largest power of 4 that is still smaller than 27 is 24, so 7^{24} has a units digit of 1. Count out the pattern on the chart (ignoring the fifth row, which is a repeat of the pattern): 7^{25} has a units digit of 7, 7^{26} has a units digit of 9, and 7^{27} has a units digit of 3. The correct answer choice is (C).

Data Sufficiency

Data Sufficiency questions require you to understand (a) how to set up a problem and (b) whether the problem can be solved with the given information. You do *not* actually need to solve the problem as you would with a Problem Solving question. In fact, you should not spend time completing the necessary calculations for these questions as you will then be unable to finish the test in the given amount of time. For example, if the question asks how old Sue is and provides the information that (1) Joe is 12 and (2) Jim is 18, then you *cannot* solve for the unknown value: Sue's age. If the information, however, tells you that (1) Joe is 12 and (2) Joe is 4 years younger than Sue, then you *can* solve for Sue's age, but you shouldn't spend time doing so. Sue's age will not actually appear in any of the answer choices; rather, the correct answer choice will indicate that you need both data points (1) and (2) in order to solve the problem.

Data Sufficiency problems can be worded in one of two main ways: as *value* questions or as *yes/no* questions.

<i>Type</i>	<i>Description</i>	<i>Example</i>
Value: How old is Sue?	Sufficient data will allow you to calculate one unique value for the unknown in question Insufficient data will allow you to calculate either zero values or more than one value for the unknown in question	Sufficient: Joe is 12 and Joe is 4 years younger than Sue Not sufficient: Joe is 12 and Jim is 18
Yes/No: Is Sue 16 years old?	Sufficient data will allow you to determine that the answer is either always yes or always no Insufficient data will allow you to determine that the answer is maybe: sometimes yes and sometimes no	Sufficient: Sue is between 20 and 25 years of age Not Sufficient: Sue is between 15 and 20 years of age

A full example of a value Data Sufficiency problem and solution is below.

Problem:

What is the greatest common factor of positive integers a and b ?

(1) $a = b + 4$

(2) $b/4$ is an integer

- A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.
- B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.
- C) Both statements TOGETHER are sufficient, but NEITHER one ALONE is sufficient.
- D) EACH statement ALONE is sufficient.
- E) Statements (1) and (2) TOGETHER are NOT sufficient.

Solution:

First, it's important to be aware that the five answer choices shown above are exactly the same on every data sufficiency problem. The text is identical and the order of the answers is always the same – for example, answer choice (A) *always* says that statement 1 is sufficient alone but statement 2 is not. You can, and should, memorize the answer choices before you go into the exam.

Factors are integers that divide evenly into other integers. For example, 4 is a factor of 8 because $8/4 = 2$, an integer with no remainder. 3 is a factor of 9 because $9/3 = 3$, an integer with no remainder.

The greatest common factor of two numbers is the largest factor that is common to both numbers. For instance, the greatest common factor of 4 and 8 is 4, because 4 is the largest factor that divides evenly into both numbers. The greatest common factor of 8 and 12 is also four, because 4 is the largest factor that divides evenly into both numbers.