

# Quantitative Reasoning Section

## Analyze Data and Draw Conclusions

The Quantitative Reasoning section of the GMAT™ exam measures your ability to reason mathematically, solve quantitative problems, and interpret graphic data. It consists of 31 multiple-choice questions. You will have 62 minutes to complete it.

## Two Types of Questions in the Quantitative Section

There are two types of questions in the Quantitative Section – Problem Solving and Data Sufficiency. Both types of questions require some knowledge of arithmetic, elementary algebra and commonly known concepts of geometry. Rest assured that the difficulty of the questions stems from the logic and analytical skills required, not the underlying math skills. Note that you cannot use a calculator while working on the Quantitative section.

### ***Problem Solving***

- Measures your ability to use logic and analytical reasoning to solve quantitative problems.
- You solve the problem and indicate the best of five answer choices.

### ***Data Sufficiency***

- Measures your ability to analyze a quantitative problem, recognize which data is relevant, and determine at what point there are enough data to solve the problem.
- You will be given a problem that consists of a question and two statements. Using the data in the statements, plus your knowledge of math and everyday facts, you decide whether you have enough data in the statement to answer the question asked.

# Test Your Quantitative Skills

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## Sample Problem Solving Question

### Directions

Solve the problem and indicate the best of the answer choices given.

### Question

If  $u > t$ ,  $r > q$ ,  $s > t$ , and  $t > r$ , which of the following must be true?

1.  $u > s$
2.  $s > q$
3.  $u > r$

(A) I only

(B) II only

(C) III only

(D) I and II

(E) II and III

**Answer:** (E)

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## Sample Data Sufficiency Question

### Directions

This data sufficiency problem consists of a question and two statements, labeled (1) and (2), in which certain data are given. You have to decide whether the data given in the statements are sufficient for answering the question. Using the data given in the statements, plus your knowledge of mathematics and everyday facts (such as the number of days in July or the meaning of the word counterclockwise), you must indicate whether:

- Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked.
- Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked.

- BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient to answer the question asked.
- EACH statement ALONE is sufficient to answer the question asked.
- Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data specific to the problem are needed.

### Question

If a real estate agent received a commission of 6 percent of the selling price of a certain house, what was the selling price of the house?

(1) The selling price minus the real estate agent's commission was \$84,600.

(2) The selling price was 250 percent of the original purchase price of \$36,000.

(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 statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient.

(E) Statements (1) and (2) TOGETHER are NOT sufficient.

**Answer:** (D)

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# Verbal Reasoning Section

## Read, Understand, Evaluate and Correct Written Material

The Verbal Reasoning section of the GMAT™ exam measures your ability to read and comprehend written material, reason and evaluate arguments, and correct material to express ideas effectively in standard written English. It consists of 36 multiple-choice questions. You will have 65 minutes to complete it.

## Three Types of Questions in the Verbal Section

There are three types of questions in the Verbal Section: Reading Comprehension, Critical Reasoning, and Sentence Correction. Reading Comprehension and Critical Reasoning questions have sub-types that are designed to test specific verbal skills.

You will not need specialized knowledge of the subject matter to answer the questions.

### ***Reading Comprehension***

- Measures your ability to understand words and statements, understand logical relationships between significant points, draw inferences, and follow the development of quantitative concepts. Specifically, the following reading skills will be tested: main idea, supporting idea, inference, application, logical structure, and style.
- Each Reading Comprehension passage comes with questions that ask you to interpret material, draw inferences or apply to a further context. The passages discuss topics including social sciences and humanities, physical and biological sciences, or a business-related field.

### ***Critical Reasoning***

- Measures your ability to make arguments, evaluate arguments, and formulate or evaluate a plan of action.
- Critical Reasoning questions are based on a short reading passage, usually fewer than 100 words. Typically, the short text comes with a question that asks you which of the five answer options strengthens or weakens an argument, tells why the argument is flawed, or strongly supports or damages the argument.

### ***Sentence Correction***

- Measures two broad aspects of your language proficiency. First, correct expression, referring to sentences that are grammatically and structurally sound. Second, effective expression, referring to sentences

that effectively express an idea or relationship clearly, concisely, and grammatically.

- Each Sentence Correction question presents a sentence, part or all of which is underlined. Beneath the sentence are five ways of phrasing the underlined part. Paying attention to grammar, word choice and sentence construction, you must choose the answer that produces the most effective sentence.

## Test Your Verbal Skills

### Sample Reading Comprehension Question

#### Directions

The questions in this group are based on the content of a passage. After reading the passage, choose the best answer to each question. Answer all questions following the passage on the basis of what is stated or implied in the passage.

#### Question

Schools expect textbooks to be a valuable source of information for students. My research suggests, however, that textbooks that address the place of Native Americans within the history of the United States distort history to suit a particular cultural value system. In some textbooks, for example, settlers are pictured as more humane, complex, skillful, and wise than Native Americans. In essence, textbooks stereotype and depreciate the numerous Native American cultures while reinforcing the attitude that the European conquest of the New World denotes the superiority of European cultures. Although textbooks evaluate Native American architecture, political systems, and homemaking, I contend that they do it from an ethnocentric, European perspective without recognizing that other perspectives are possible.

One argument against my contention asserts that, by nature, textbooks are culturally biased and that I am simply underestimating children's ability to see through these biases. Some researchers even claim that by the time students are in high school, they know they cannot take textbooks literally. Yet substantial evidence exists to the contrary. Two researchers, for example, have conducted studies that suggest that children's attitudes about particular cultures are strongly influenced by the textbooks used in schools. Given this, an ongoing, careful review of how school textbooks depict Native Americans is certainly warranted.

Which of the following would most logically be the topic of the paragraph immediately following the passage?

- (A) Specific ways to evaluate the biases of United States history textbooks
- (B) The centrality of the teacher's role in United States history courses
- (C) Nontraditional methods of teaching United States history
- (D) The contributions of European immigrants to the development of the United States
- (E) Ways in which parents influence children's political attitudes

**Answer:** (A)

### **Sample Critical Reasoning Question**

#### **Directions**

For this question, select the best of the answer choices given.

#### **Question**

The cost of producing radios in Country Q is ten percent less than the cost of producing radios in Country Y. Even after transportation fees and tariff charges are added, it is still cheaper for a company to import radios from Country Q to Country Y than to produce radios in Country Y.

The statements above, if true, best support which of the following assertions?

- (A) Labor costs in Country Q are ten percent below those in Country Y.
- (B) Importing radios from Country Q to Country Y will eliminate ten percent of the manufacturing jobs in Country Y.
- (C) The tariff on a radio imported from Country Q to Country Y is less than ten percent of the cost of manufacturing the radio in Country Y.
- (D) The fee for transporting a radio from Country Q to Country Y is more than ten percent of the cost of manufacturing the radio in Country Q.
- (E) It takes ten percent less time to manufacture a radio in Country Q than it does in Country Y.

**Answer:** (C)

### **Sample Sentence Correction Question**

#### **Directions**

This question presents a sentence, part of which or all of which is underlined. Beneath the sentence you will find five ways of phrasing the underlined part. The first of these repeats the original; the other four are different. If you think the original is best, choose the first answer; otherwise choose one of the others.

This question tests correctness and effectiveness of expression. In choosing your answer, follow the requirements of standard written English; that is, pay attention to grammar, choice of words, and sentence construction. Choose the answer that produces the most effective sentence; this answer should be clear and exact, without awkwardness, ambiguity, redundancy, or grammatical error.

**Question**

While larger banks can afford to maintain their own data-processing operations, many smaller regional and community banks are finding that the cost associated with upgrading data-processing equipment and with the development and maintenance of new products and technical staff are prohibitive.

- (A) cost associated with
- (B) costs associated with
- (C) costs arising from
- (D) cost of
- (E) costs of

**Answer:** (B)

# Integrated Reasoning Section

## Evaluate Information Presented in Multiple Formats from Multiple Sources

The Integrated Reasoning section of the GMAT™ exam measures how well you integrate data to solve complex problems. With your target business schools interested in the development of future business leaders, one of the most important skills you can demonstrate is your ability to take in large amounts of data and make sound decisions. Specifically, the Integrated Reasoning section tests your ability to:

- Synthesize information presented in graphics, text, and numbers.
- Evaluate relevant information from different sources.
- Organize information to see relationships and to solve multiple, interrelated problems.
- Combine and manipulate information from multiple sources to solve complex problems.

The Integrated Reasoning section contains four question types for a total of 12 questions—most requiring multiple responses. You will have 30 minutes to complete it.

## Four Types of Questions in the Integrated Reasoning Section

There are four types of questions in the Integrated Reasoning Section—Multi-Source Reasoning, Table Analysis, Graphics Interpretation, and Two-Part Analysis. The questions involve both quantitative and verbal reasoning, either separately or in combination. There are two special features of this section: many questions require more than one response, and you will be able to use an online calculator with basic functions to answer the questions. Because the questions are designed to test your ability to integrate data to solve complex problems, you must answer all responses to a question correctly; no partial credit will be given.

For each Integrated Reasoning question type, you can sample multiple questions using the links below, and click the button at the bottom of the sample question screen to reveal the correct response.

1. [Multi-Source Reasoning](#)—Measures your ability to examine data from multiple sources text passages, tables, graphics, or some combination of the three—and to analyze each source of data carefully to answer multiple questions. Some questions will require you to recognize discrepancies among different sources of data. Others will ask you to draw inferences, and still others may require you to determine whether data is relevant.

2. [Table Analysis](#)—Measures your ability sort and analyze a table of data, similar to a spreadsheet, in order to determine what information is relevant or meets certain conditions.
3. [Graphics Interpretation](#)—Measures your ability to interpret the information presented in a graph or other graphical image (scatter plot, x/y graph, bar chart, pie chart, or statistical curve distribution) to discern relationships, and make inferences.
4. [Two-Part Analysis](#)—Measures your ability to solve complex problems. They could be quantitative, verbal, or some combination of both. The format is intentionally versatile to cover a wide range of content. Your ability to evaluate trade-offs, solve simultaneous equations, and discern relationships between two entities is measured.

# Analytical Writing Assessment Section

## Think Critically and Communicate Your Ideas

The Analytical Writing Assessment Section of the GMAT™ exam requires that you analyze the reasoning behind a given argument and write a critique of that argument. Your ability to think critically and to communicate your ideas through an essay in English is measured.

The Analytical Writing Assessment section consists of one 30-minute writing task—Analysis of an Argument. The arguments on the test include topics of general interest related to business, or a variety of other subjects. Specific knowledge of the essay topic is not necessary; only your capacity to write analytically is assessed.

## Analysis of an Argument in the Analytical Writing Assessment Section

In the Analysis of an Argument section you will discuss how well reasoned you find a given argument. To do so, you will analyze the line of reasoning and the use of evidence in the argument. Before writing you will want to take a few minutes to evaluate the argument and plan your response. Your ideas will need to be organized and fully developed. You will want to leave time to reread your response and make revisions, but remember you only have 30 minutes.

## How Will Your Analysis of an Argument be Evaluated?

Your essay is evaluated using two independent ratings, combined to compute a single AWA score:

- An electronic system will evaluate structural and linguistic features of your essay, including organization of ideas, syntactic variety and topical analysis.
- Trained evaluators with backgrounds in various subject matter areas, including management education will assess the overall quality of your thinking and writing, including how well you:
  - Identify and analyze important features of the argument
  - Organize, develop, and express your ideas
  - Provide relevant supporting reasons and examples
  - Use standard written English

## Analytical Writing Assessment Rescoring Service

You may request rescoring of your AWA by an independent reader for a fee of US\$45. Requests for rescoring must be made within six months of your test date. A request received after six months will not be honored.

### ***Five Things to Know About Rescoring***

1. Rescoring results are final, i.e., you may not submit more than one rescore request.
2. Rescoring could result in an increase or decrease in your original AWA score.
3. Revised results are sent to you and the programs you designated as score recipients approximately 20 days after your request is received.
4. Once your rescoring request is processed the fee will not be refunded.
5. To request rescoring, please contact [GMAT Customer Service](#).

Note: The Integrated Reasoning, Quantitative and Verbal sections of the GMAT exam cannot be rescored.

**GMAT Write™** — Essay Writing Practice Tool. Give your Analytical Writing Assessment section results a boost with the GMAT Write™ tool.

## Test Your Analytical Writing Assessment Skills

In addition to the Analytical Writing Assessment section sample argument below, you can download a full list of the possible [Analysis of an Argument Topics](#) you will see on the GMAT exam.

### ***Sample Analysis of an Argument Problem***

#### **Directions**

In this section, you will be asked to write a critique of the argument presented. You are NOT being asked to present your own views on the subject. Specifically,

- Evaluate the argument and plan a response before you begin writing
- Organize your ideas and develop them fully
- Provide relevant supporting reasons and examples

#### **Question**

The following appeared in the editorial section of a monthly business news magazine:

"Most companies would agree that as the risk of physical injury occurring on the job increases, the wages paid to employees should also increase. Hence it makes financial sense for employers to make the workplace safer: they could thus reduce their payroll expenses and save money."

Discuss how well reasoned you find this argument. In your discussion be sure to analyze the line of reasoning and the use of evidence in the argument. For example, you may need to consider what questionable assumptions underlie the thinking and what alternative explanations or counterexamples might weaken 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, if anything, would help you better evaluate its conclusion.

## **Answer**

*The following is an actual AWA essay that received the highest rating:*

This argument states that it makes financial sense for employers to make the workplace safer because by making the workplace safer then lower wages could be paid to employees. This conclusion is based on the premise that as the list of physical injury increases, the wages paid to employees should also increase.

However, there are several assumptions that may not necessarily apply to this argument. For example, the costs associated with making the workplace safe must outweigh the increased payroll expenses due to hazardous conditions. Also, one must look at the plausibility of improving the work environment. And finally, because most companies agree that as the risk of injury increases so will wages doesn't necessarily mean that all companies which have hazardous work environments agree.

The first issue to be addressed is whether increased labor costs justify large capital expenditures to improve the work environment. Clearly one could argue that if making the workplace safe would cost an exorbitant amount of money in comparison to leaving the workplace as is and paying slightly increased wages than it would not make sense to improve the work environment. For example, if making the workplace safe would cost \$100 million versus additional payroll expenses of only \$5,000 per year, it would make financial sense to simply pay the increased wages. No business or business owner with any sense would pay all that extra money just to save a couple dollars and improve employee health and relations. To consider this, a cost benefit analysis must be made. I also feel that although a cost benefit analysis should be the determining factor with regard to these decisions making financial sense, it may not be the determining factor with regard to making social, moral and ethical sense.

This argument also relies on the idea that companies solely use financial sense in analyzing improving the work environment. This is not the case. Companies look at other considerations such as the negative social ramifications of high on-job injuries. For example, Toyota spends large amounts of money improving its environment because while its goal is to be profitable, it also prides itself on high employee morale and an almost perfectly safe work environment. However, Toyota finds that it can do both, as by improving employee health and employee relations they are guaranteed a more motivated staff, and hence a more efficient staff; this guarantees more money for the business as well as more safety for the employees.

Finally one must understand that not all work environments can be made safer. For example, in the case of coal mining, a company only has limited ways of making the work environment safe. While companies may be able to ensure some safety precautions, they may not be able to provide all the safety measures necessary. In other words, a mining company has limited ability to control the air quality within a coal mine and therefore it cannot control the risk of employees getting Blacklung. In other words, regardless of the intent of the company, some jobs are simply dangerous in nature.

In conclusion, while at first it may seem to make financial sense to improve the safety of the work environment sometimes it truly does not make financial sense. Furthermore, financial sense may not be the only issue a company faces. Other types of analyses must be made such as the social ramifications of an unsafe work environment and the overall ability of a company to improve that environment (i.e., coal mine). Before any decision is made, all these things must be considered, not simply the reduction of payroll expenses.