Graduate
Management
Admission
Council®

ETS®

**Educational
Testing Service**

Graduate Management

Admission Test (GMAT®)

Disclosed Edition

Test Code 37

ABOUT THIS EDITION OF THE GMAT®

This booklet contains the questions that were used to derive scores on the edition of the Graduate Management Admission Test (GMAT®) with test code 37. If the first two digits of the test code on your answer sheet (item 5 on Side 1) are not 37, please contact ETS to send you the correct booklet to match your answer sheet. The answer key follows the test questions. This booklet also contains instructions for calculating raw scores corrected for guessing. These are followed by unique tables for converting raw scores to the reported scaled scores for test code 37.

In this edition of the GMAT, the following essay and multiple-choice sections contributed to your scores:

Analytical Writing Assessment

      Essay 1   Analysis of an Argument

      Essay 2   Analysis of an Issue

Verbal Assessment

      Section 3   Sentence Correction

      Section 5   Critical Reasoning

      Section 7   Reading Comprehension

Quantitative Assessment

      Section 1   Problem Solving

      Section 4   Problem Solving

      Section 6   Data Sufficiency

GMAT Total

      All six verbal and quantitative sections combined as one score

Section 2 in this edition of the GMAT contained trial or equating questions and does not contribute to your score. Questions from this section are not included in this booklet.

Essay 1
ANALYSIS OF AN ARGUMENT

Time—30 minutes

<u>Directions:</u> In this section, you will be asked to write a critique of the argument presented below. Note that you are *not* being asked to present your own views on the subject. Instead, you may need to consider what questionable assumptions underlie the thinking, what alternative explanations or counterexamples might weaken the conclusion, or what sort of evidence could help strengthen or refute the argument.

Read the argument and the instructions that follow it, and then make any notes in your test booklet that will help you plan your response. Begin writing your response on the separate answer document. Make sure that you use the answer document that goes with this writing task.

The following appeared in a magazine article on trends and lifestyles.

"In general, people are not as concerned as they were a decade ago about regulating their intake of red meat and fatty cheeses. Walk into the Heart's Delight, a store that started selling organic fruits and vegetables and wholegrain flours in the 1960's, and you will also find a wide selection of cheeses made with high butterfat content. Next door, the owners of the Good Earth Café, an old vegetarian restaurant, are still making a modest living, but the owners of the new House of Beef across the street are millionaires."

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. You can also discuss what, if anything, would make the argument more sound and persuasive or would help you to better evaluate its conclusion.

NOTES

Use the space below or on the facing page to plan your response. Any writing on these pages will not he evaluated.

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.

Essay 2

ANALYSIS OF AN ISSUE

Time—30 minutes

"The rise of multinational corporations is leading to global homogeneity*. People everywhere are beginning to want the same products and services, and regional differences are rapidly disappearing."

*homogeneity: sameness, similarity

Discuss the extent to which you agree or disagree with the opinion expressed above. Support your point of view with reasons and/or examples based on your own experiences, your observations, or your reading.

NOTES

Use the space below or on the facing page to plan your response. Any writing on these pages will not be evaluated.

S T O P

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ANSWER SHEET – Test Code 37

Section 1	Section 3	Section 4	Section 5	Section 6	Section 7
1.	1.	1.	1.	1.	1.
2.	2.	2.	2.	2.	2.
3.	3.	3.	3.	3. Not Scored	3.
4.	4.	4.	4.	4.	4.
5. Not Scored	5.	5.	5.	5.	5.
6.	6.	6.	6.	6.	6.
7.	7.	7.	7.	7.	7.
8.	8.	8.	8.	8.	8.
9.	9.	9.	9.	9.	9.
10.	10.	10.	10.	10.	10.
11.	11.	11.	11.	11.	11.
12.	12.	12.	12.	12.	12.
13.	13.	13.	13.	13.	13.
14.	14.	14.	14.	14.	14.
15.	15.	15.	15.	15.	15.
16.	16.	16.	16.	16.	16.
	17.			17.	17.
	18.			18.	18.
	19.			19.	
	20.			20.	
	21.				
	22.				

Directions: In this section solve each problem, using any available space on the page for scratchwork. Then indicate the best of the answer choices given.

Numbers: All numbers used are real numbers.

Figures: Figures that accompany problems in this section are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that its figure is not drawn to scale. All figures lie in a plane unless otherwise indicated.

1. If $\dfrac{4}{5 - \dfrac{a}{b}} = 1$, which of the following must be true?

   (A) $a = 0$
   (B) $b = 0$
   (C) $a = 1$
   (D) $b = 1$
   (E) $a = b$

$$y = kx + 3$$

2. In the equation above, k is a constant. If $y = 17$ when $x = 2$, what is the value of y when $x = 4$?

   (A) 34
   (B) 31
   (C) 14
   (D) 11
   (E) 7

3. In 1989 the price of a new model S car was x dollars. If the price of the model S car increased each year by 10 percent of the previous year's price, what was the price of the car, in dollars, in 1991?

   (A) 1.10x
   (B) 1.20x
   (C) 1.21x
   (D) 1.25x
   (E) 1.33x

4. If n is a prime number greater than 3, what is the remainder when n^2 is divided by 12?

   (A) 0
   (B) 1
   (C) 2
   (D) 3
   (E) 5

5. NOT SCORED.

6. If a subscription for 10 issues of a magazine costs $24.00 and represents a savings of 20 percent of the cover price, what is the cover price per issue?

   (A) $1.98
   (B) $2.40
   (C) $2.80
   (D) $2.86
   (E) $3.00

7. Each edge of a cubical block of wood measures 2 inches. What is the surface area of the block in square inches?

   (A) 4
   (B) 8
   (C) 12
   (D) 16
   (E) 24

GO ON TO THE NEXT PAGE.

CREATE YOUR OWN SUNDAE

12 Ice Cream Flavors
10 Kinds of Candies
8 Liquid Toppings
5 Kinds of Nuts
With or Without Whipped Cream

8. If a customer makes exactly one selection from each of the five categories shown in the table above, what is the greatest possible number of ice cream sundaes that a customer can create?

(A) 9,600
(B) 4,800
(C) 2,400
(D) 800
(E) 400

9. The average (arithmetic mean) of 4 positive integers is 50. If the average of 2 of these integers is 45, what is the greatest possible value that one of the other 2 integers can have?

(A) 55
(B) 65
(C) 100
(D) 109
(E) 115

10. Machine A working alone can complete a job in $3\frac{1}{2}$ hours. Machine B working alone can do the same job in $4\frac{2}{3}$ hours. How long will it take both machines working together at their respective constant rates to complete the job?

(A) 1 hr 10 min
(B) 2 hr
(C) 4 hr 5 min
(D) 7 hr
(E) 8 hr 10 min

11. What is the smallest positive integer n for which 324 is a factor of 6^n?

(A) 2
(B) 3
(C) 4
(D) 5
(E) 6

Note: Figure not drawn to scale.

12. In the figure above, if $AB \parallel CE$, $CE = DE$, and $y = 45$, then $x =$

(A) 45
(B) 60
(C) 67.5
(D) 112.5
(E) 135

From \ To	A	B	C	D	E	F
A		3	3	2	7	3
B	3		3	4	5	5
C	3	3		1	2	4
D	2	4	1		5	5
E	7	5	2	5		6
F	3	5	4	5	6	

13. The table above shows the cost, in dollars, of traveling to and from cities A, B, C, D, E, and F. A sales representative wants to leave from A, travel to C, E, and F, and return to A. If the first city that the sales representative travels to must be E, what is the minimum possible cost for the entire trip?

(A) $13
(B) $14
(C) $16
(D) $18
(E) $20

14. A retailer sold an appliance for 30 percent above cost, which represented a gross profit of $21.00. For what price did the retailer sell the appliance?

(A) $27.30
(B) $51.00
(C) $63.00
(D) $70.00
(E) $91.00

GO ON TO THE NEXT PAGE.

15. How many integers between 324,700 and 458,600 have tens digit 1 and units digit 3?

(A) 10,300
(B) 10,030
(C) 1,353
(D) 1,352
(E) 1,339

16. A breakfast that consists of 1 ounce of corn puffs and 8 ounces of fruit X provides 257 calories. When 8 ounces of fruit Y is substituted for the 8 ounces of fruit X, the total number of calories is reduced to 185. If fruit X provides 1.8 times as many calories as fruit Y, how many calories does 8 ounces of fruit Y alone provide?

(A) 11.25
(B) 72
(C) 90
(D) 95
(E) 129.6

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

Directions: In each of the following sentences, some part of the sentence or the entire sentence is underlined. Beneath each 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 the best of these answer choices, choose answer A; otherwise, choose one of the others. Select the best version and fill in the corresponding oval on your answer sheet.

This is a test of correctness and effectiveness of expression. In choosing answers, 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.

1. Clark and Florence Wallace, a husband-and-wife medical team, worked steadily and efficiently through the night, but sipping their coffee the next morning, she noticed that he seemed disoriented.

   (A) sipping their coffee the next morning, she noticed that he seemed disoriented

   (B) sipping their coffee the next morning, he seemed to be disoriented, she noticed

   (C) as they sipped their coffee the next morning, she noticed that he seemed disoriented

   (D) as they were sipping their coffee the next morning, he seemed, she noticed, disoriented

   (E) he seemed disoriented, she noticed, sipping their coffee the next morning

2. Very popular from 1900 until the 1920's, the renewed interest in ceiling fans began when the energy crisis in 1974 forced homeowners to look for alternative methods of heating and cooling.

   (A) Very popular from 1900 until the 1920's, the renewed interest in ceiling fans began

   (B) The renewed interest in ceiling fans, which were very popular form 1900 until the 1920's began

   (C) After they were very popular from 1900 until the 1920's, the renewed interest in ceiling fans was beginning

   (D) Ceiling fans were very popular from 1900 until the 1920's, with renewed interest beginning in them

   (E) From 1900 until the 1920's ceiling fans were very popular, and now the renewed interest in them has begun

3. There is speculation that increasing cold weather was what may have been responsible for the Anasazi move from Mesa Verde to sites in other canyons.

   (A) that increasing cold weather was what may have been

   (B) whether increasing cold weather was what was

   (C) that increasingly cold weather was what had been

   (D) whether increasingly cold weather may have been what was

   (E) that increasingly cold weather may have been

4. In Aristophanes' Lysistrata women are seen as the means of bringing peace and good sense to a wartorn world.

   (A) as

   (B) as if they are

   (C) that they will be

   (D) that they are

   (E) for being

GO ON TO THE NEXT PAGE.

5. Despite no proof that the consumption of any particular foods reverse hardening of the arteries, studies indicate that refraining from eating certain foods could help reverse blockage of coronary arteries, the blood vessels that feed the heart.

(A) Despite no proof that the consumption of any particular foods reverse hardening of the arteries, studies indicate that refraining from eating certain foods could

(B) Despite no foods having been proved to reverse hardening of the arteries when consumed, studies indicate that refraining from eating certain foods can

(C) Although the consumption of no particular foods have been proved to reverse hardening of the arteries, studies indicate that to refrain from eating certain foods could

(D) Although not proved that the consumption of any foods reverse hardening of the arteries, studies indicate that refraining from eating certain foods can

(E) Although it has not been proved that the consumption of any particular food will reverse hardening of the arteries, studies indicate that refraining from eating certain foods can

6. Artificial intelligence emerged during the late 1950's as an academic discipline based on the assumption that computers are able to be programmed to think like people.

(A) are able to be programmed to think like people

(B) were able to be programmed to think as people

(C) can be programmed to think as people can

(D) could be programmed to think like people

(E) are capable of being programmed to think like people do

7. Although the coordination of monetary policy can help facilitate the orderly financing of existing imbalances, it is unlikely that its effect on their size is significant in the absence of an appropriate fiscal adjustment.

(A) it is unlikely that its effect on their size is significant

(B) it is unlikely that the size of their effect would be significant

(C) affecting their sizes are not likely to be significant

(D) the significance of their effect on its size is unlikely

(E) its effect on their size is not likely to be significant

8. The proposed health care bill would increase government regulation of health insurance, establish standards that would guarantee wider access to people with past health problems and to workers changing jobs who otherwise could be uncovered for months.

(A) establish standards that would guarantee wider to people with past health problems and to workers changing jobs who

(B) establishing standards that would guarantee wider access to people with past health problems and to workers who are changing jobs and

(C) to establish standards that would guarantee wider access to people with past health problems and to workers who change jobs that

(D) for establishing standards that would guarantee wider access for people with past health problems and workers changing jobs who

(E) for the establishment of standards that would guarantee wider access for people with past health problems and workers who are changing jobs that

GO ON TO THE NEXT PAGE.

9. Many writers of modern English have acquired careless habits that damage the clarity of their prose, but these habits can be broken if they are willing to take the necessary trouble.

(A) but these habits can be broken

(B) but these habits are breakable

(C) but they can break these habits

(D) which can be broken

(E) except that can be broken

10. While the base salary for the top five officers of the company did not change from 1990 to 1991, cuts were made in nonsalary compensation, as in allowances for overseas assignments and club memberships.

(A) cuts were made in nonsalary compensation, as in

(B) cuts were made in such nonsalary compensation as

(C) cuts were made in such nonsalary compensation as those in

(D) cuts in nonsalary compensation were made in areas like

(E) there were cuts made in nonsalary compensation, in areas like

11. It is an oversimplified view of cattle raising to say that all one has to do with cattle is leave them alone while they feed themselves, corral them and to drive them to market when the time is ripe.

(A) all one has to do with cattle is leave them alone while they feed themselves, corral them, and to

(B) all one has to do with cattle is to leave them alone to feed themselves, to corral them, and

(C) all one has to do with cattle is leave them alone while they feed themselves and then corral them and

(D) the only thing that has to be done with cattle is leave them alone while they feed themselves, corral them, and

(E) the only thing that has to be done with cattle is to leave them alone while they feed themselves, to corral them, and

12. Although dozens of New York's small museums are either devoted to local history of various ethnic groups, there are many one-of-a-kind museums from Manhattan to the Bronx that are open for exploration on summer weekends.

(A) Although dozens of New York's small museums are either devoted to local history or various ethnic groups, there are

(B) Although dozens of New York's small museums are devoted to local history or various ethnic groups,

(C) Dozens of New York's small museums are devoted to local history or various ethnic groups, but there are

(D) Dozens of New York's small museums are devoted to local history or various ethnic groups, and there are also

(E) Devoted to local history or various ethnic groups, dozens of New York's small museums and also

13. Oberlin College in Ohio was a renegade institution at its 1833 founding for deciding to accept both men and women as students.

(A) at its 1833 founding for deciding to accept

(B) for the decision at its 1833 founding to accept

(C) when it was founded in 1833 for its decision to accept

(D) in deciding at its founding in 1833 to accept

(E) by deciding at its founding in 1833 on the acceptance of

14. Unlike a hurricane, which can be observed from within, a tornado is so small that such a study has not been practical.

(A) that such a study has not been practical

(B) that studying it that way has not been impractical

(C) for such studies as this to have been impractical

(D) as to not make such a study practical

(E) as to be impractical of study

GO ON TO THE NEXT PAGE.

15. <u>After the Colonial period's 50 percent mortality rate, life expectancy improved for children, but</u> as late as the nineteenth century about one child in three died before reaching the age of six.

(A) After the Colonial period's 50 percent mortality rate, life expectancy improved for children, but

(B) Even though children's life expectancy, which improved over the Colonial period's 50 percent mortality rate,

(C) Although life expectancy for children improved after the Colonial period, during which the mortality rate was 50 percent,

(D) While there was an improvement in life expectancy for children after the 50 percent mortality rate of the Colonial period, still

(E) Despite children's life expectancy improvement from the Colonial period's 50 percent mortality rate.

16. Just as a writer trying to understand shtetl life might read Shalom Aleichem or Isaac Bashevis Singer, <u>in the same way writers trying to understand Black life in the American South might well listen to records</u> by the Mississippi Delta bluesman Charlie Patton.

(A) in the same way writers trying to understand Black life in the American South might well listen to records

(B) in the same way writers who try and understand Black life in the American South might well listen to a record

(C) so a writer trying to understand Black life in the American South might well listen to records

(D) so do writers try and understand Black life in the American South and might well listen to a record

(E) then writers trying to understand Black life in the American South could well listen to records

17. The pattern of whisker spots on the face of a male lion, <u>like human fingerprints, are a lifelong means of identification, since they are both unique and unchanging</u>.

(A) like human fingerprints, are a lifelong means of identification, since they are both unique and unchanging

(B) like human fingerprints, is a lifelong means of identification, since it is both unique and unchanging

(C) like human fingerprints, is a means of identification for life, being both unique and unchanging

(D) since they are both unique and unchanging, like human fingerprints, are a means of identification for life

(E) both unique and unchanging, are, like human fingerprints, a lifelong means of identification

18. Even though the state has spent ten years and seven million dollars planning a reservoir along the Ubi River, the project <u>will have to be abandoned as a result of the river becoming so heavily polluted</u>.

(A) will have to be abandoned as a result of the river becoming so heavily polluted

(B) is to be abandoned on account of the heavy pollution which the river received

(C) had to be abandoned because the river had received such heavy pollution

(D) has to be abandoned because of the river and its heavy pollution

(E) must be abandoned because the river has become so heavily polluted

19. In spite of federal subsidizing of public transportation systems massively and major local efforts to persuade the public to use public transportation, mass transit has been steadily losing patronage to the private automobile for the past thirty years.

(A) In spite of federal subsidizing of public transportation systems massively and major local efforts to persuade

(B) In spite of massive federal subsidizing of public transportation systems and major efforts locally at persuading

(C) Despite massive federal subsidies to public transportation systems and the making of major efforts locally to persuade

(D) Despite massive federal subsidies to public transportation systems and major local efforts to persuade

(E) Despite massive federal subsidies to public transportation systems and making major local efforts at persuading

20. Bankers require that the financial information presented to them by mortgage applicants be complete and follow a prescribed format.

(A) be complete and follow a prescribed format

(B) is complete and it follows a prescribed format

(C) be complete and a prescribed format is followed

(D) to be complete and a prescribed format be followed

(E) be completed, and it followed a prescribed format

21. In the face of widespread concern about environmental waste, compact disc manufacturers are attempting to find a replacement for the disposable plastic box in which they package their product.

(A) the disposable plastic box in which they

(B) the disposable plastic box where they

(C) a disposable plastic box in which to

(D) disposable plastic boxes inside which they

(E) the disposable plastic boxes in which to

22. In feudal Europe, urban areas developed from clusters of houses where peasants lived and commuted to farmlands in the countryside, unlike homesteading policies in the American West that required residency on the land itself in order to obtain eventual ownership.

(A) In feudal Europe, urban areas developed from clusters of houses where peasants lived and commuted to farmlands in the countryside, unlike homesteading policies in the American West that

(B) In feudal Europe, urban areas developed from clusters of houses where peasants lived and from which they commuted to farmlands in the countryside, but in the American West homesteading policies

(C) Unlike feudal Europe where urban areas developed from clusters of houses where peasants lived and commuted to farmlands in the countryside, the American West's homesteading policies

(D) Unlike feudal Europe where urban areas developed from clusters of houses where peasants lived and commuted to farmlands in the countryside, the homesteading policies of the American West

(E) Urban areas developed from clusters of houses where peasants lived from which they commuted to farmlands in the countryside in feudal Europe, unlike the American West where homesteading policies

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.

Directions: In this section solve each problem, using any available space on the page for scratchwork. Then indicate the best of the answer choices given.

Numbers: All numbers used are real numbers.

Figures: Figures that accompany problems in this section are intended to provide information useful in solving the problems. They are drawn as accurately as possible EXCEPT when it is stated in a specific problem that its figure is not drawn to scale. All figures lie in a plane unless otherwise indicated.

1. Of the people who responded to a market survey, 120 preferred Brand X and the rest preferred Brand Y. If the respondents indicated a preference for Brand X over Brand Y by a ratio of 3 to 1, how many people responded to the survey?

   (A) 80
   (B) 160
   (C) 240
   (D) 360
   (E) 480

2. $(x+3y)^2 =$

   (A) $x^2 + 3y^2$
   (B) $x^2 + 9y^2$
   (C) $x^2 + 3xy + 3y^2$
   (D) $x^2 + 3xy + 9y^2$
   (E) $x^2 + 6xy + 9y^2$

3. At Company K, 15 percent of the employees are secretaries and 60 percent are salespeople. If there are 45 other employees of Company K, how many employees does Company K have?

   (A) 160
   (B) 180
   (C) 190
   (D) 200
   (E) 400

4. $\dfrac{1}{1+\frac{1}{3}} - \dfrac{1}{1+\frac{1}{2}} =$

   (A) $-\dfrac{1}{3}$
   (B) $-\dfrac{1}{6}$
   (C) $-\dfrac{1}{12}$
   (D) $\dfrac{1}{12}$
   (E) $\dfrac{1}{3}$

5. If x and y are negative integers, which of the following must be true?

   I. $x - y < 0$
   II. $\dfrac{x}{y} > y$
   III. $x^2 > y$

   (A) I only
   (B) II only
   (C) III only
   (D) I and III
   (E) II and III

GO ON TO THE NEXT PAGE.

6. A certain hotel has 1,400 single rooms and 420 double rooms. Each room is cleaned by one person. If one person can clean a single room every 15 minutes and a double room every 20 minutes, how many cleaning persons are needed to clean all of the rooms if each person works for exactly 7 hours?

(A) 65
(B) 70
(C) 80
(D) 90
(E) 265
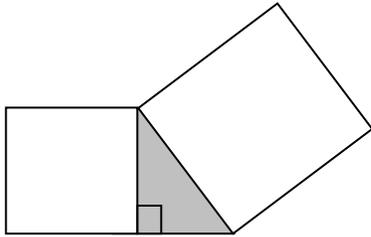
7. In the figure above, the two square regions have areas 16 and 25, respectively. What is the area of the shaded triangular region?

(A) 6
(B) 8
(C) 9
(D) 12
(E) 15

8. If the consumer price index for a sample of goods and services purchased in Dallas rose from 100 at the end of 1967 to x at the end of 1985, what was the average (arithmetic mean) annual increase in the index over this period?

(A) $\dfrac{x+100}{18}$

(B) $\dfrac{x}{18}$

(C) $\dfrac{100-x}{18}$

(D) $\dfrac{x-100}{18}$

(E) $\dfrac{100x}{18}$

9. At a certain instant in time, the number of cars, N, traveling on a portion of a certain highway can be estimated by the formula

$$N = \frac{20Ld}{600+s^2}$$

where L is the number of lanes in the same direction, d is the length of the portion of the highway, in feet, and s is the average speed of the cars, in miles per hour. Based on the formula, what is the estimated number of cars traveling on a $\dfrac{1}{2}$ mile portion of the highway if the highway has 2 lanes in the same direction and the average speed of the cars is 40 miles per hour? (5,280 feet = 1 mile)

(A) 155
(B) 96
(C) 80
(D) 48
(E) 24

10. In how many different ways can 3 people be assigned to fill 3 different positions so that each person is assigned to exactly one position?

(A) Twelve
(B) Nine
(C) Six
(D) Three
(E) One

11. A point on the edge of a fan blade that is rotating in a plane is 10 centimeters from the center of the fan. What is the distance traveled, in centimeters, by this point in 15 seconds when the fan runs at the rate of 300 revolutions per minute?

(A) 750π
(B) $1,500\pi$
(C) $1,875\pi$
(D) $3,000\pi$
(E) $7,500\pi$

GO ON TO THE NEXT PAGE.

12. A 2-year certificate of deposit is purchased for k dollars. If the certificate earns interest at an annual rate of 6 percent compounded quarterly, which of the following represents the value, in dollars, of the certificate at the end of the 2 years?

(A) $(1.06)^2 k$

(B) $(1.06)^8 k$

(C) $(1.015)^2 k$

(D) $(1.015)^8 k$

(E) $(1.03)^4 k$

13. If the sum of the first n positive integers is S, what is the sum of the first n positive <u>even</u> integers, in terms of S?

(A) $\dfrac{S}{2}$

(B) S
(C) $2S$
(D) $2S + 2$
(E) $4S$

14. If x and y are positive numbers and $z = xy^2$, a 50 percent increase in x and 20 percent decrease in y would result in which of the following changes in z?

(A) A decrease of 4%
(B) A decrease of 14%
(C) An increase of 4%
(D) An increase of 20%
(E) An increase of 30%

15. If it is 6:27 in the evening on a certain day, what time in the morning was it exactly 2,880,717 minutes <u>earlier</u>? (Assume standard time in one location.)

(A) 6:22
(B) 6:24
(C) 6:27
(D) 6:30
(E) 6:32

16. If n is an integer, which of the following CANNOT be a factor of $3n + 4$?

(A) 4
(B) 5
(C) 6
(D) 7
(E) 8

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

Time—25 minutes

16 Questions

Directions: For each question in this section, select the best of the answer choices given.

1. Since a rhinoceros that has no horn is worthless to poachers, the Wildlife Protection Committee plans to protect selected rhinoceroses form being killed by poachers by cutting off the rhinos' horns.

    The Wildlife Protection Committee's plan assumes that

    (A) poachers do not kill rhinos that are worthless to them

    (B) hornless rhinos pose less of a threat to humans, including poachers, than do rhinos that have horns

    (C) rhinos are the only animals poachers kill for their horns

    (D) hornless rhinos can successfully defend their young against nonhuman predators

    (E) imposing more stringent penalties on poachers will not decrease the number of rhinos killed by poachers

2. Crimes are mainly committed by the young, and for this reason merely increasing the number of police officers or expenditures on police services has little effect on reducing the crime rate. In fact, the only factor associated with a crime-rate drop is a decrease in the number of people in the community aged fourteen to thirty.

    The findings above can best serve as part of an argument against

    (A) the likelihood that any law enforcement program will be effective in reducing the crime rate within a short time

    (B) increasing prison terms for young people found guilty of crimes

    (C) introducing compulsory military conscription for people aged seventeen to nineteen

    (D) raising the age at which students are permitted to leave school

    (E) a community's plan to increase the number of recreational and educational activities in which young adults can participate

3. A 20 percent decline in lobster catches in Maine waters since 1980 can be justifiably blamed on legislation passed in 1972 to protect harbor seals. Maine's population of harbor seals is now double the level existing before production was initiated, and these seals are known to eat both fish and lobsters.

    Which of the following, if true, would most seriously weaken the argument above?

    (A) Harbor seals usually eat more fish than lobsters, but the seals are natural predators of both.

    (B) Although harbor seals are skillful predators of lobsters, they rarely finish eating their catch.

    (C) Harbor seals attract tourists to Maine's coastal areas, thus revitalizing the local economy.

    (D) Authors of the 1972 legislation protecting harbor seals were convinced that an increase in that animal's numbers would not have a measurably negative impact on the lobster catch.

    (E) The record lobster harvests of the late 1970's removed large numbers of mature lobsters from the reproductive stock.

GO ON TO THE NEXT PAGE.

4. Politician: Fewer people are entering the labor market now than previously. If the economy grows, the demand for motivated and educated people will far outstrip the supply. Some companies have already started to respond to this labor-market situation by finding better ways to keep their current employees. Their concern is a sure indicator that the economy is growing.

Which of the following is the best criticism of the politician's reasoning?

(A) The fact that companies are making prudent preparations for a possible future development does not mean that this development is already taking place.

(B) The fact that some companies now try harder to keep their employees does not mean that they used to be indifferent to employee morale.

(C) The fact that demand will outstrip supply does not mean that there will be no supply at all.

(D) The fact that the number of new entrants into the labor market is declining does not mean that the number of new entrants is lower than it has ever been.

(E) The fact that current employees have become more valuable to some companies does not mean that those employees will do their jobs better than they used to.

5. Under current federal law, employers are allowed to offer their employees free parking spaces as a tax-free benefit, but they can offer employees only up to $180 per year as a tax-free benefit for using mass transit. The government could significantly increase mass transit ridership by raising the limit of this benefit to meet commuters' transportation costs.

The proposal above to increase mass transit ridership assumes that

(A) current mass transit systems are subject to unexpected route closings and delays

(B) using mass transit creates less air pollution per person than using a private automobile

(C) the parking spaces offered by employers as tax-free benefits can be worth as much as $2,500 per year

(D) many employees are deterred by financial considerations from using mass transit to commute to their places of employment

(E) because of traffic congestion on major commuter routes, it is often faster to travel to one's place of employment by means of mass transit than by private automobile

6. Which of the following best completes the passage below?

"Government" does not exist as an independent entity defining policy. Instead there exists a group of democratically elected pragmatists sensitive to the electorate, who establish policies that will result in their own reelection. Therefore, if public policy is hostile to, say, environmental concerns, it is not because of governmental perversity but because elected officials believe that ------.

(A) environmentalists would be extremely difficult to satisfy with any policy, however environmentally sound

(B) environmental concern are being accommodated as well as public funds permit

(C) the public is overly anxious about environmental deterioration

(D) the majority of voters vote for certain politicians because of those politicians' idiosyncratic positions on policy issues

(E) the majority of voters do not strongly wish for a different policy

7. Fresh potatoes generally cost about $2 for a 10-pound bag, whereas dehydrated instant potatoes cost, on average, about $3 per pound. It can be concluded that some consumers will pay 15 times as much for convenience, since sales of this convenience food continue to rise.

Which of the following, if true, indicates that there is a major flaw in the argument above?

(A) Fresh potatoes bought in convenient 2-pound bags are about $1 a bag, or 2 ½ times more expensive than fresh potatoes bought in 10-pound bags.

(B) Since fresh potatoes are 80 percent water, one pound of dehydrated potatoes is the equivalent of 5 pounds of fresh potatoes.

(C) Peeled potatoes in cans are also more expensive than the less convenient fresh potatoes.

(D) Retail prices of dehydrated potatoes have declined by 20 percent since 1960 to the current level of about $3 a pound.

(E) As a consequence of labor and processing costs, all convenience foods cost more than the basic foods from which they are derived.

GO ON TO THE NEXT PAGE.

8. Consumers in California seeking personal loans have fewer banks to turn to than do consumers elsewhere in the United States. This shortage of competition among banks explains why interest rates on personal loans in California are higher than in any other region of the United States.

Which of the following, if true, most substantially weakens the conclusion above?

(A) Because of the comparatively high wages they must pay to attract qualified workers, California banks charge depositors more than banks elsewhere do for many of me services they offer.

(B) Personal loans are riskier than other types of loans, such as home mortgage loans, that banks make.

(C) Since bank deposits in California are covered by the same type of insurance that guarantees bank deposits in other parts of the United States, they are no less secure than deposits elsewhere.

(D) The proportion of consumers who default on their personal loans is lower in California than in any other region of the United States.

(E) Interest rates paid by California banks to depositors are lower than those paid by banks in other parts of the United States because in California there is less competition to attract depositors.

9. Technically a given category of insurance policy is underpriced if, over time, claims against it plus expenses associated with it exceed total income from premiums. But premium income can be invested and will then yield returns of its own. Therefore, an underpriced policy does not represent a net loss in every case.

The argument above is based on which of the following assumptions?

(A) No insurance policies are deliberately underpriced in order to attract customers to the insurance company offering such policies.

(B) A policy that represents a net loss to the insurance company is not an underpriced policy in every case.

(C) There are policies for which the level of claims per year can be predicted with great accuracy before premiums are set.

(D) The income earned by investing premium income is the most important determinant of an insurance company's profits.

(E) The claims against at least some underpriced policies do not require paying out all of the premium income from those policies as soon as it is earned.

10. Purebred cows native to Mongolia produce, on average, 400 liters of milk per year; if Mongolian cattle are crossbred with European breeds, the crossbred cows can produce, on average, 2,700 liters per year. An international agency plans to increase the profitability of Mongolia's dairy sector by encouraging widespread crossbreeding of native Mongolian cattle with European breeds.

Which of the following, if true, casts the most serious doubt on the viability of the agency's plan?

(A) Not all European breeds of cattle can be successfully bred with native Mongolian cattle.

(B) Many young Mongolians now regard cattle raising as a low-status occupation because it is less lucrative than other endeavors open to them.

(C) Mongolia's terrain is suitable for grazing native herds but not for growing the fodder needed to keep crossbred animals healthy.

(D) Cowhide and leather products, not milk, make up the bulk of Mongolia's animal product exports to Europe.

(E) Many European breeds of cattle attain average milk production levels exceeding 2,700 liters.

11. Any combination of overwork and stress inevitably leads to insomnia. Managers at HiCorp, Inc., all suffer from stress. A majority of the managers—despite their doctors' warnings—work well over 60 hours per week, whereas the other managers work no more than the normal 40 hours per week. HiCorp gives regular bonuses only to employees who work more than 40 hours per week.

Which of the following conclusions is most strongly supported by the statements above?

(A) Managers at HiCorp work under conditions that are more stressful than the conditions under which managers at most other companies work.

(B) Most of the employee bonuses given by HiCorp are given to managers.

(C) At HiCorp, insomnia is more widespread among managers than among any other group of employees.

(D) No manager at HiCorp who works only 40 hours per week suffers from overwork.

(E) Most of the managers at HiCorp who receive regular bonuses have insomnia.

12. Holiday receipts—the total sales recorded in the fourth quarter of the year—determine the economic success or failure of many retail businesses. Camco, a retailer selling just one camera model, is an excellent example. Camco's holiday receipts, on average, account for a third of its yearly total receipts and about half of its yearly profits.

If the statements above are true, which of the following must also be true about Camco on the basis of them?

(A) Its fixed expenses per camera sold are higher during the fourth quarter than for any of the other three quarters.

(B) It makes more profit during the first and third quarters combined than during the fourth quarter.

(C) Its per-camera retail price is lower, on average, during the fourth quarter than during any one of the first three quarters.

(D) It makes less profit, on average, for a given dollar amount of sales during the first three quarters combined than during the fourth quarter.

(E) The per-camera price it pays to wholesalers is higher, on average, during the fourth quarter than during any of the other three quarters.

13. Canadians now increasingly engage in "out shopping," which is shopping across the national border, where prices are lower. Prices are lower outside of Canada in large part because the goods-and-services tax that pays for Canadian social services is not applied.

Which one of the following is best supported on the basis of the information above?

(A) If the upward trend in out-shopping continues at a significant level and the amounts paid by the government for Canadian social services are maintained, the Canadian goods-and-services tax will be assessed at a higher rate.

(B) If Canada imposes a substantial tariff on the goods bought across the border, a reciprocal tariff on cross-border shopping in the other direction will be imposed, thereby harming Canadian businesses.

(C) The amounts the Canadian government pays out to those who provide social services to Canadians are increasing.

(D) The same brands of goods are available to Canadian shoppers across the border as are available in Canada.

(E) Out-shopping purchases are subject to Canadian taxes when the purchaser crosses the border to bring them into Canada.

14. Surveys indicate that 52 percent of all women aged eighteen to sixty-five are in the labor force (employed outside the home) in any given month. On the basis of these surveys, a market researcher concluded that 48 percent of all women aged eighteen to sixty-five are full-time homemakers year-round.

Which of the following, if true, would most seriously weaken the researcher's conclusion?

(A) More women are in the labor force today than during any other period since the Second World War.

(B) Many workers, both men and women, enter and exit the labor force frequently.

(C) Although only a small sample of the total population is surveyed each month, these samples have been found to be a reliable indicator of total monthly employment.

(D) Surveys show that more women than ever before consider having a rewarding job an important priority.

(E) Women who are in the labor force have more discretionary income available to them than do women who are not.

GO ON TO THE NEXT PAGE.

15. Left-handed persons suffer more frequently than do right-handed persons from certain immune disorders, such as allergies. Left-handers tend to have an advantage over the right-handed majority, however, on task controlled by the right hemisphere of the brain, and mathematical reasoning is strongly under the influence of the right hemisphere in most people.

If the information above is true, it best supports which of the following hypotheses?

(A) Most people who suffer from allergies or other such immune disorders are left-handed rather than right-handed.

(B) Most left-handed mathematicians suffer from some kind of allergy.

(C) There are proportionally more left-handers among people whose ability to reason mathematically is above average than there are among people with poor mathematical reasoning ability.

(D) If a left-handed person suffers from an allergy, that person will probably be good at mathematics.

(E) There are proportionally more people who suffer from immune disorders such as allergies than there are people who are left-handed or people whose mathematical reasoning ability is unusually good.

16. After observing the Earth's weather patterns and the 11-year sunspot cycle of the Sun for 36 years, scientists have found that high levels of sunspot activity precede shifts in wind patterns that affect the Earth's weather. One can conclude that meteorologist will be able to improve their weather forecasts based on this information.

Which of the following, if true, most seriously weakens the argument above?

(A) Weather forecasts are more detailed today than they were 36 years ago.

(B) Scientists can establish that sunspot activity directly affects the Earth's weather.

(C) Evidence other than sunspot activity has previously enabled meteorologists to forecast the weather conditions that are predictable on the basis of sunspot activity.

(D) Scientist have not determined why the sunspot activity on the Sun follows an 11-year cycle.

(E) It has been established that predictable wind patterns yield predictable weather patterns.

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.

Time —25 minutes

20 Questions

Directions: Each of the data sufficiency problems below 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 <u>sufficient</u> for answering the question. Using the data given in the statements <u>plus</u> your knowledge of mathematics and everyday facts (such as the number of days in July or the meaning of *counterclockwise*), you are to fill in oval

    A if statement (1) ALONE is sufficient, but statement (2) alone is not sufficient to answer the question asked;

    B if statement (2) ALONE is sufficient, but statement (1) alone is not sufficient to answer the question asked;

    C if BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient;

    D if EACH statement ALONE is sufficient to answer the question asked;

    E if statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data specific to the problem are needed.

Numbers: All numbers used are real numbers.

Figures: A figure in a data sufficiency problem will conform to the information given in

the question, but will not necessarily conform to the additional information given

in statements (1) and (2).

You may assume that lines shown as straight are straight and that angle measures are greater than zero.

You may assume that the positions of points, angles, regions, etc., exist in the order shown.

All figures lie in a plane unless otherwise indicated.

Note: In questions that ask for the value of a quantity, the data given in the statements are

sufficient only when it is possible to determine exactly one numerical value for

the quantity.

Example:

    In ΔPQR, what is the value of x?
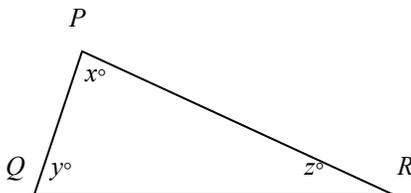
    (1) $PQ = PR$

    (2) $y = 40$

Explanation: According to statement (1), $PQ = PR$; therefore, PQR is isosceles and $y = z$. Since $x + y + z = 180$, it follows that $x + 2y = 180$. Since statement (1) does not give a value for y, you cannot answer the question using statement (1) alone. According to statement (2), $y = 40$; therefore, $x + z = 140$. Since statement (2) does not give a value for z, you cannot answer the question using statement (2) alone. Using both statements together, since $x + 2y = 180$ and the value of y is given, you can find the value of x. Therefore, the answer is C.

GO ON TO THE NEXT PAGE.

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.

1. How many numbers do the sets S and T have in common?

(1) S is a set of 10 numbers.

(2) T is a set of 100 numbers.
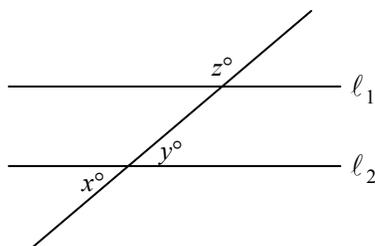
2. In the figure above, if line ℓ_1 is parallel to line ℓ_2, what is the value of x ?

(1) $y = 50$

(2) $z = 130$

3. Not Scored.

4. If Pat saved \$600 of his earnings last month, how much did Pat earn last month?

(1) Pat spent $\frac{1}{2}$ of his earnings last month for living expenses and saved $\frac{1}{3}$ of the remainder.

(2) Of his earnings last month, Pat paid twice as much in taxes as he saved.

5. The purchase price of Beth's new car, including the sales tax, is \$8,000. If she finances the car, making a down payment of \$2,000 and paying off the rest in equal monthly installments, what will be the total cost of the car, including the sales tax and financing?

(1) The installments are to be \$200 per month.

(2) The installments will extend over a period of exactly 3 years.

6. If $y \neq 0$, is $\frac{x}{y} = \frac{1}{2}$?

(1) x is 50 percent of y

(2) $0.1x = 0.05y$

7. If n is an integer, is n even?

(1) $n^2 - 1$ is an odd integer.

(2) $3n + 4$ is an even integer.

8. If x, y, p, and q are positive, is $x \geq y$?

(1) $\frac{px}{qy} = \frac{p}{q}$

(2) $xy = p$

9. If p_1 and p_2 are the populations and r_1 and r_2 are the numbers of representatives of District 1 and District 2, respectively, the ratio of the population to the number of representatives is greater for which of the two districts?

(1) $p_1 > p_2$

(2) $r_2 > r_1$

10. What digit does t represent in the decimal $0.t73$?

(1) $t < 5$

(2) $0.t73 < \frac{1}{t}$
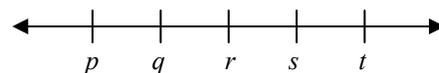
11. On the number line above, p, q, r, s, and t are five consecutive even integers in increasing order. What is the average (arithmetic mean) of these five integers?

(1) $q + s = 24$

(2) The average (arithmetic mean) of q and r is 11.

GO ON TO THE NEXT PAGE.

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.

12. What is the length in meters of a certain rectangular garden?

(1) The length of the garden is 6 meters more than twice the width.

(2) The length of the garden is 4 times the width.

13. If $x < y$, is $x^2 < y^2$?

(1) $y > 0$

(2) $x > 0$

14. If Fran jumps straight up off the floor and lands on her feet T seconds later, her feet will reach a maximum height of $1.22T^2$ meters above the floor. On one such jump, was Fran off the floor for less than 1 second?

(1) On her jump Fran's feet reached a maximum height of 1 meter above the floor.

(2) On her jump Fran spent more than $\frac{1}{4}$ second ascending.

15. If $[x]$ denotes the greatest integer less than or equal to x, is $[x] = 0$?

(1) $5x + 1 = 3 + 2x$

(2) $0 < x < 1$

16. During a 6-day local trade show, the least number of people registered in a single day was 80. Was the average (arithmetic mean) number of people registered per day for the 6 days greater than 90?

(1) For the 4 days with the greatest number of people registered, the average (arithmetic mean) number registered per day was 100.

(2) For the 3 days with the smallest number of people registered, the average (arithmetic mean) number registered per day was 85.

17. If a and b are positive integers, what is the value of $a + b$?

(1) $\dfrac{a}{b} = \dfrac{5}{8}$

(2) The greatest common divisor of a and b is 1.

18. Are all of the numbers in a certain list of 15 numbers equal?

(1) The sum of all the numbers in the list is 60.

(2) The sum of any 3 numbers in the list is 12.

DAILY TRAIN SCHEDULE

Train	Scheduled Departure Station S	Scheduled Arrival Station T
X	7:08 (EST)*	8:10 (EST)

* Eastern Standard Time

19. The table above shows the morning schedule for train X. If Juan took train X on Monday morning, did he arrive at station T on schedule?

(1) Juan arrived at station T on Monday morning 1 hour and 2 minutes after he left station S.

(2) Juan arrived at his office at 8:30 (EST) on Monday morning, which was 20 minutes after he arrived at station T.

20. If n and k are positive integers, is $\sqrt{n+k} > 2\sqrt{n}$?
(1) $k > 3n$

(2) $n + k > 3n$

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.

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

Seeking a competitive adavantage, some professional service firms (for example, firms providing advertising, accounting, or health care services) have considered
Line offering unconditional guarantees of satisfaction. Such
(5) guarantees specify what clients can expect and what the firm will do if it fails to fulfill these expectations. Particularly with first-time clients, and unconditional guarantee can be an effective marketing tool if the client is very cautious, the firm's fees are high, the
(10) negative consequences of bad service are grave, or business is difficult to obtain through referral and word-of-mouth.
   However, an unconditional guarantee can sometimes hinder marketing efforts. With its implication that fail-
(15) ure is possible, the guarantee may, paradoxically, cause clients to doubt the service firm's ability to deliver the promised level of service. It may conflict with a firm's desire to appear sophisticated, or may even suggest that a firm is begging for business. In legal and health care
(20) services, it may mislead clients by suggesting that law-suits or medical procedures will have guaranteed out-comes. Indeed, professional service firms with outstanding reputations and performance to match have little to gain from offering unconditional guarantees. And any firm
(25) that implements and unconditional guarantee without undertaking a commensurate commitment to quality of service is merely employing a potentially costly marketing gimmick.

1.   The primary function of the passage as a whole is to

   (A) account for the popularity of a practice

   (B) evaluate the utility of a practice

   (C) demonstrate how to institute a practice

   (D) weigh the ethics of using a strategy

   (E) explain the reasons for pursuing a strategy

2.   All of the following are mentioned in the passage as circumstances in which professional service firms can benefit from offering an unconditional guarantee EXCEPT:

   (A) The firm is having difficulty retaining its clients of long standing.

   (B) The firm is having difficulty getting business through client recommendations.

   (C) The firm charges substantial fees for its services.

   (D) The adverse effects of poor performance by the firm are significant for the client.

   (E) The client is reluctant to incur risk.

3.   Which of the following is cited in the passage as a goal of some professional service firms in offering unconditional guarantees of satisfaction?

   (A) A limit on the firm's liability

   (B) Successful competition against other firms

   (C) Ability to justify fee increases

   (D) Attainment of an outstanding reputation in a field

   (E) Improvement in the quality of the firm's service

GO ON TO THE NEXT PAGE.

4. The passage's description of the issue raised by unconditional guarantees for health care or legal services most clearly implies that which of the following is true?

(A) The legal and medical professions have standards of practice that would be violated by attempts to fulfill such unconditional guarantees.

(B) The result of a lawsuit or medical procedure cannot necessarily be determined in advance by the professionals handling a client's case.

(C) The dignity of the legal and medical professions is undermined by any attempts at marketing of professional services, including unconditional guarantees.

(D) Clients whose lawsuits or medical procedures have unsatisfactory outcomes cannot be adequately compensated by financial settlements alone.

(E) Predicting the monetary cost of legal or health care services is more difficult than predicting the monetary cost of other types of professional services.

5. Which of the following hypothetical situations best exemplifies the potential problem noted in the second sentence of the second paragraph (lines 14-17)?

(A) A physician's unconditional guarantee of satisfaction encourages patients to sue for malpractice if they are unhappy with the treatment they receive.

(B) A lawyer's unconditional guarantee of satisfaction makes clients suspect that the lawyer needs to find new clients quickly to increase the firm's income.

(C) A business consultant's unconditional guarantee of satisfaction is undermined when the consultant fails to provide all of the services that are promised.

(D) An architect's unconditional guarantee of satisfaction makes clients wonder how often the architect's buildings fail to please clients.

(E) An accountant's unconditional guarantee of satisfaction leads clients to believe that tax returns prepared by the accountant are certain to be accurate.

6. The passage most clearly implies which of the following about the professional service firms mentioned in line 22?

(A) They are unlikely to have offered unconditional guarantees of satisfaction in the past.

(B) They are usually profitable enough to be able to compensate clients according to the terms of an unconditional guarantee.

(C) They usually practice in fields in which the outcomes are predictable.

(D) Their fees are usually more affordable than those charged by other professional service firms.

(E) Their clients are usually already satisfied with the quality of service that is delivered.

Although genetic mutations in bacteria and viruses can lead to epidemics, some epidemics are caused by bacteria and viruses that have undergone no significant genetic change. In analyzing the latter, scientist have
(5) discovered the importance of social and ecological factors to epidemics. Poliomyelitis, for example, emerged as an epidemic in the United States in the twentieth century; by then, modern sanitation was able to delay exposure to polio until adolescence or adulthood, at
(10) which time polio infection produced paralysis. Previously, infection had occurred during infancy, when it typically provided lifelong immunity without paralysis. Thus, the hygiene that helped prevent typhoid epidemics indirectly fostered a paralytic polio epidemic. Another
(15) example is Lyme disease, which is caused by bacteria that are transmitted by deer ticks. It occurred only sporadically during the late nineteenth century but has recently become prevalent in parts of the United States, largely due to an increase in the deer population that
(20) occurred simultaneously with the growth of the suburbs and increased outdoor recreational activities in the deer's habitat. Similarly, an outbreak of dengue hemorrhagic fever became an epidemic in Asia in the 1950's because of ecological changes that caused *Aedes aegypti*,
(25) the mosquito that transmits the dengue virus, to proliferate. The stage is now set in the United States for a dengue epidemic because of the inadvertent introduction and wide dissemination of another mosquito, *Aedes albopictus*.

7. The passage suggests that a lack of modern sanitation would make which of the following most likely to occur?

(A) An outbreak of Lyme disease

(B) An outbreak of dengue hemorrhagic fever

(C) An epidemic of typhoid

(D) An epidemic of paralytic polio among infants

(E) An epidemic of paralytic polio among adolescents and adults

8. According to the passage, the outbreak of dengue hemorrhagic fever in the 1950's occurred for which of the following reasons?

(A) The mosquito *Aedes aegypti* was newly introduced into Asia.

(B) The mosquito *Aedes aegypti* became more numerous.

(C) The mosquito *Aedes albopictus* became infected with the dengue virus.

(D) Individuals who would normally acquire immunity to the dengue virus as infants were not infected until later in life.

(E) More people began to visit and inhabit areas in which mosquitoes live and breed.

9. It can be inferred from the passage that Lyme disease has become prevalent in parts of the United States because of which of the following?

(A) The inadvertent introduction of Lyme disease bacteria to the United States

(B) The inability of modern sanitation methods to eradicate Lyme disease bacteria

(C) A genetic mutation in Lyme disease bacteria that makes them more virulent

(D) The spread of Lyme disease bacteria from infected humans to noninfected humans

(E) An increase in the number of humans who encounter deer ticks

10. Which of the following can most reasonably be concluded about the mosquito *Aedes albopictus* on the basis of information given in the passage?

(A) It is native to the United States.

(B) It can proliferate only in Asia.

(C) It transmits the dengue virus.

(D) It caused an epidemic of dengue hemorrhagic fever in the 1950's.

(E) It replaced *Aedes aegypti* in Asia when ecological changes altered *Aedes aegypti's* habitat.

11. Which of the following best describes the organization of the passage?

(A) A paradox is stated, discussed, and left unresolved.

(B) Two opposing explanations are presented, argued, and reconciled.

(C) A theory is proposed and is then followed by descriptions of three experiments that support the theory.

(D) A generalization is stated and is then followed by three instances that support the generalization.

(E) An argument is described and is then followed by three counterexamples that refute the argument.

12. Which of the following, if true, would most strengthen the author's assertion about the cause of the Lyme disease outbreak in the United States?

(A) The deer population was smaller in the late nineteenth century than in the mid-twentieth century.

(B) Interest in outdoor recreation began to grow in the late nineteenth century.

(C) In recent years the suburbs have stopped growing.

(D) Outdoor recreation enthusiasts routinely take measures to protect themselves against Lyme disease.

(E) Scientists have not yet developed a vaccine that can prevent Lyme disease.

GO ON TO THE NEXT PAGE.

Two modes of argumentation have been used on behalf of women's emancipation in Western societies. Arguments in what could be called the "relational" feminist tradition maintian the doctrine of "equality in
(5) difference," or equity as distinct from equality. They posit that biological distinctions between the sexes result in a necessary sexual diviision of labor in the family and throughout society and that women's pro- creative labor is currently undervalued by society, to
(10) the disadvantage of women. By contrast, the individual- ist feminist tradition emphasizes individual human rights and celebrates women's quest for personal autonomy, while downplaying the importance of gender roles and minimizing discussion of childbearing and its attendant
(15) responsibilities.
   Before the late nineteenth century, these views coexisted within the feminist movement, often within the writings of the same individual. Between 1890 and 1920, however, relational feminism, which had been the
(20) dominant strain in feminist thought, and which still pre- dominates among European and non-Western feminists, lost ground in England and the United States. Because the concept of individual rights was already well estab- lished in the Anglo-Saxon legal and political tradition,
(25) individualist feminism came to predominate in English- speaking countries. At the same time, the goals of the two approaches began to seem increasingly irreconcil- able. Individualist feminists began to advocate a totally gender-blind system with equal rights for all. Relational
(30) feminists, while agreeing that equal educational and economic opportunities outside the home should be avail- able for all women, continued to emphasize women's special contributions to society as homemakers and mothers; they demanded special treatment for women,
(35) including protective legislation for women workers, state-sponsored maternity benefits, and paid compensa- tion for housework.
   Relational arguments have a major pitfall: because they underline women's physiological and psychological
(40) distinctiveness, they are often appropriated by political adversaries and used to endorse male privilege. But the individualist approach, by attacking gender roles, deny- ing the singificance of physiological difference, and condemning existing familial institutions as hopelessly
(45) patriarchal, has often simply treated as irrelevant the family roles important to many women. If the individu- alist framework, with its claim for women's autonomy, could be harmonized with the family-oriented concerns of relational feminists, a more fruitful model for con- temporary feminist politics could emerge.

13. The author of the passage alludes to the well- established nature of the concept of individual rights in the Anglo-Saxon legal and political tradition in order to

(A) illustrate the influence of individualist feminist thought on more general intellectual trends in English history

(B) argue that feminism was already a part of the larger Anglo-Saxon intellectual tradition, even though this has often gone unnoticed by critics of women's emancipation

(C) explain the decline in individualist thinking among feminists in non-English-speaking countries

(D) help account for an increasing shift toward individualist feminism among feminists in English-speaking countries

(E) account for the philosophical differences between individualist and relational feminists in English- speaking countries

14. The passage suggests that the author of the passage believes which of the following?

(A) The predominance of individualist feminism in English-speaking countries is a historical phenomenon, the causes of which have not yet been investigated.

(B) The individualist and relational feminist views are irreconcilable, given their theoretical differences concerning the foundations of society.

(C) A consensus concerning the direction of future feminist politics will probably soon emerge, given the awareness among feminists of the need for cooperation among women.

(D) Political adversaries of feminism often misuse arguments predicated on differences between the sexes to argue that the existing social system should be maintained.

(E) Relational feminism provides the best theoretical framework for contemporary feminist politics, but individualist feminism could contribute much toward refining and strengthening modern feminist thought.

GO ON TO THE NEXT PAGE.

15. It can be inferred from the passage that the individualist feminist tradition denies the validity of which of the following causal statements?

(A) A division of labor in a social group can result in increased efficiency with regard to the performance of group tasks.

(B) A division of labor in a social group causes inequities in the distribution of opportunities and benefits among group members.

(C) A division of labor on the basis of gender in a social group is necessitated by the existence of sex-linked biological differences between male and female members of the group.

(D) Culturally determined distinctions based on gender in a social group foster the existence of differing attitudes and opinions among group members.

(E) Educational programs aimed at reducing inequalities based on gender among members of a social group can result in a sense of greater well-being for all members of the group.

16. According to the passage, relational feminists and individualist feminists agree that

(A) individual human rights take precedence over most other social claims

(B) the gender-based division of labor in society should be eliminated

(C) laws guaranteeing equal treatment for all citizens regardless of gender should be passed

(D) a greater degree of social awareness concerning the importance of motherhood would be beneficial to society

(E) the same educational and economic opportunities should be available to both sexes

17. According to the author, which of the following was true of feminist thought in Western societies before 1890?

(A) Individualist feminist arguments were not found in the thought or writing of non-English-speaking feminists.

(B) Individualist feminism was a strain in feminist thought, but another strain, relational feminism, predominated.

(C) Relational and individualist approaches were equally prevalent in feminist thought and writing.

(D) The predominant view among feminists held that the welfare of women was ultimately less important than the welfare of children.

(E) The predominant view among feminists held that the sexes should receive equal treatment under the law.

18. The author implies that which of the following was true of most feminist thinkers in England and the United States after 1920?

(A) They were less concerned with politics than with intellectual issues.

(B) They began to reach a broader audience and their programs began to be adopted by mainstream political parties.

(C) They called repeatedly for international cooperation among women's groups to achieve their goals.

(D) They moderated their initial criticism of the economic systems that characterized their societies.

(E) They did not attempt to unite the two different feminist approaches in their thought.

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.

ANSWER KEY – Test Code 37

Section 1	Section 3	Section 4	Section 5	Section 6	Section 7
1. E	1. C	1. B	1. A	1. E	1. B
2. B	2. B	2. E	2. A	2. D	2. A
3. C	3. E	3. B	3. E	3. Not Scored	3. B
4. B	4. A	4. D	4. A	4. A	4. B
5. Not Scored	5. E	5. E	5. D	5. C	5. D
6. E	6. D	6. B	6. E	6. D	6. E
7. E	7. E	7. A	7. B	7. D	7. C
8. A	8. B	8. D	8. A	8. A	8. B
9. D	9. C	9. D	9. E	9. C	9. E
10. B	10. B	10. C	10. C	10. E	10. C
11. C	11. C	11. B	11. E	11. D	11. D
12. C	12. D	12. D	12. D	12. C	12. A
13. C	13. D	13. C	13. A	13. B	13. D
14. E	14. A	14. A	14. B	14. A	14. D
15. E	15. C	15. D	15. C	15. D	15. C
16. C	16. C	16. C	16. C	16. A	16. E
	17. B			17. C	17. B
	18. E			18. B	18. E
	19. D			19. B	
	20. A			20. A	
	21. A				
	22. B				

CONVERSION TABLE FOR VERBAL AND QUANTITATIVE SCORES

Graduate Management Admission Test, Code 37

	Scaled Score			Scaled Score			Scaled Score	
Corrected Raw Score	Verbal Score	Quantitative Score	Corrected Raw Score	Verbal Score	Quantitative Score	Corrected Raw Score	Verbal Score	Quantitative Score
56	52		31	32	38	6	13	17
55	51		30	31	37	5	13	16
54	50		29	30	36	4	12	15
53	49		28	30	35	3	11	14
52	48		27	29	35	2	10	13
51	47		26	28	34	1	10	12
50	46	51	25	27	33	0	9	11
49	45	51	24	27	32			
48	44	50	23	26	32			
47	44	50	22	25	31			
46	43	49	21	24	30			
45	42	49	20	24	29			
44	41	48	19	23	29			
43	41	47	18	22	28			
42	40	46	17	22	27			
41	39	45	16	21	26			
40	38	44	15	20	26			
39	38	44	14	19	25			
38	37	43	13	19	24			
37	36	42	12	18	23			
36	35	41	11	17	22			
35	35	41	10	16	21			
34	34	40	9	16	20			
33	33	39	8	15	19			
32	33	38	7	14	18			

CONVERSION TABLE FOR TOTAL SCORES
Graduate Management Admission Test, Code 37

Corrected Raw Score	Total Scaled Score	Corrected Raw Score	Total Scaled Score	Corrected Raw Score	Total Scaled Score	Corrected Raw Score	Total Scaled Score
108		78	660	48	500	18	340
107		77	660	47	500	17	340
106	800	76	650	46	490	16	330
105	800	75	650	45	490	15	330
104	800	74	640	44	480	14	320
103	800	73	640	43	480	13	320
102	790	72	630	42	470	12	310
101	790	71	630	41	470	11	310
100	780	70	620	40	460	10	300
99	780	69	610	39	460	9	300
98	770	68	610	38	450	8	290
97	760	67	600	37	440	7	270
96	760	66	600	36	440	6	260
95	750	65	590	35	430	5	250
94	750	64	590	34	430	4	240
93	740	63	580	33	420	3	230
92	740	62	580	32	420	2	220
91	730	61	570	31	410	1	210
90	730	60	570	30	410	0	200
89	720	59	560	29	400		
88	720	58	560	28	400		
87	710	57	550	27	390		
86	710	56	550	26	390		
85	700	55	540	25	380		
84	690	54	540	24	380		
83	690	53	530	23	370		
82	680	52	520	22	360		
81	680	51	520	21	360		
80	670	50	510	20	350		
79	670	49	510	19	350		

SCORING INFORMATION

Calculating and Verifying Your Multiple-Choice Scores

Proceed with the following steps.

1. As you match the responses on your answer sheet with the answer key on page 29, use marks to indicate whether each answer is correct or incorrect. Cross out any questions you omitted, or for which you marked more than one answer, because they are not counted in the scoring. The number of questions crossed out should equal the "raw score total omit" figure on your score report. The number of questions crossed out in the three sections that contributed to your verbal score and the similar number for the three sections that contributed to the quantitative score should match the "raw score verbal omit" and "raw score quantitative omit" figures on your score report.

2. Count the total number of questions you answered correctly in the three sections that contributed to the verbal score. This number should match the "raw score verbal right" figure on your score report.

3. Then count the total number of questions you answered incorrectly in these three sections. This number should match the "raw score verbal wrong" figure on your score report.

4. Divide the number answered incorrectly from Step 3 by four.

5. Subtract the result in Step 4 from the number answered correctly in Step 2. This is the correction for guessing.

6. Round the resulting number to the nearest whole number by adding .5 and then dropping all digits to the right of the decimal point. This number should equal the "verbal corrected raw score" figure on your score report.

▪▪

The table below shows three examples of corrected raw score calculations based on 40 questions (total number of omitted or multiple-marked questions, number correct, and number wrong):

	Example 1	Example 2	Example 3
Step 1- Number omitted or multiple-marked……..	8	0	5
Step 2- Number correct…	20	25	30
Step 3- Number wrong….	12	15	5
Step 4- Number wrong in step 3 divided by 4……..	3	3.75	1.25
Step 5- Number in step 2 minus number in step 4	17	21.25	28.75
Step 6- Rounding- Add .5 to the number in step 5	17.5	21.75	29.25
Final raw score corrected for guessing: Drop all digits to the right of the decimal in step 6………...	17	21	29

Repeat these steps using the three sections contributing to the quantitative score to calculate your quantitative corrected raw score and all six sections contributing to the total score to obtain your total corrected raw score. The figures you calculate should match the respective figures on your score report. The sum of your verbal and quantitative corrected raw scores may be one point higher or lower than the total corrected raw score due to the rounding procedure for each score.

Conversion of Corrected Raw Scores to Scaled Scores

Use the score conversion tables on pages 30 and 31 to find the scaled score associated with each of your corrected raw scores. The equivalent scaled scores should match those on your score report.

Your Analytical Writing Scores

Analytical Writing Assessments are offered in this test preparation product for practice purposes only. When calculating the GMAT® equivalent score on GMAT Paper Tests, the essay portion should be ignored. When taking the GMAT®, the Analytical Writing Assessment results are reported on your official score report to schools.

Essay Insight (SM), available through www.mba.com, lets you write two practice essays on actual AWA topics and has them scored automatically by the same technology used to score the GMAT. Your scores are objective and accurate, so you can practice to improve.

Rescoring Service

If there are any discrepancies between your self-scoring results and those on your score report, you may request that ETS rescore your answer sheet by submitting the appropriate fee and the form for this purpose you're your *GMAT Examinee Score Interpretation Guide*. But first check your answer sheet from incomplete erasures or light or partial marking, and check your calculations to be sure that they are accurate.

Caveats Regarding Raw Score Interpretation

1.   The GMAT is designed to yield only the reported verbal, quantitative, and total scaled scores. One should not calculate raw scores or individual test sections and infer specific strengths or weaknesses from a comparison of the raw scores results by section. There are two reasons for this. First, different sections have different numbers of questions, and, even if the number were the same of if percentages were used to make the numbers comparable, the sections might not be equally difficult. For illustrative purposes only, suppose that one section had 20 items and another had 25. Furthermore, suppose you received corrected raw scores of 10 on the first and 10 on the second. It would be inappropriate to conclude that you had equal ability in the two sections because the corrected raw scores were equal, as you really obtained 50 percent for the first section and only 40 percent for the second. It would be equally inappropriate, however, to conclude from the percentages that you did better on the first section than on the second. Suppose the first section was relatively easy for most examinees (say, an average corrected raw score percentage across examines of 55 percent) and the second was relatively difficult (an average raw score percentage of 35 percent). Now you might conclude that you did less well than average on the first section and better than average on the second.

        Differences in difficulty level between editions are accounted for in the procedure for converting the verbal, quantitative, and total corrected raw scores to scaled scores. Since the corrected raw scores for individual sections are not converted to produce scales scores by section, performance on individual sections of the test cannot be compared.

        Second, corrected raw scores by section ate not converted to scaled scores by section because the GMAT is not designed to reliably measure specific strengths and weaknesses beyond the general verbal and quantitative abilities for which separate scaled scores are reported. Reliability is dependent, in part, on the number of questions in the test- the more questions, the higher the reliability. The relatively few questions in each section, taken alone, are not sufficient to produce a reliable result for each section (see "Accuracy of the Scores" in the *GMAT Examinee Score Interpretation Guide.*) Only the reported verbal, quantitative, and total scaled scores (which are based on questions from several sections) have sufficient reliability to permit their use in counseling and predicting graduate school performance.

2.   It is possible, if you repeat the test, that your second raw scores corrected for guessing could be high than on the first test, but your scaled scores could be lower and vice versa. This is a result of the slight differences in difficulty level between editions of the test, which are taken into account when corrected raw scores are converted to the GMAT scaled scores. That is, for a given scaled score, a more difficult edition requires a lower corrected raw score and an easier edition requires a high corrected raw score.

Additional Information

If you have questions about any of the information in this booklet, please write to:

> Graduate Management Admission Test
>
> Educational Testing Service
>
> P.O. Box 6102
>
> Princeton, NJ 08541-6102

If you have questions about specific test questions, please indicate that test code and the number(s) of the