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DO SO.**Test 4: Science Reasoning***35 Minutes—40 Questions*

DIRECTIONS: This test consists of several distinct passages. Each passage is followed by a number of multiple-choice questions based on the passage. Study the passage, and then select the best answer to each question. You are allowed to reread the passage. Record your answer by blackening the appropriate space on the answer sheet.

Passage I

The charts below show the composition of the average American diet as it exists (solid) and as recommended by

the National Research Council (cross-hatched). The kilocalorie is a measure of the energy content of food.

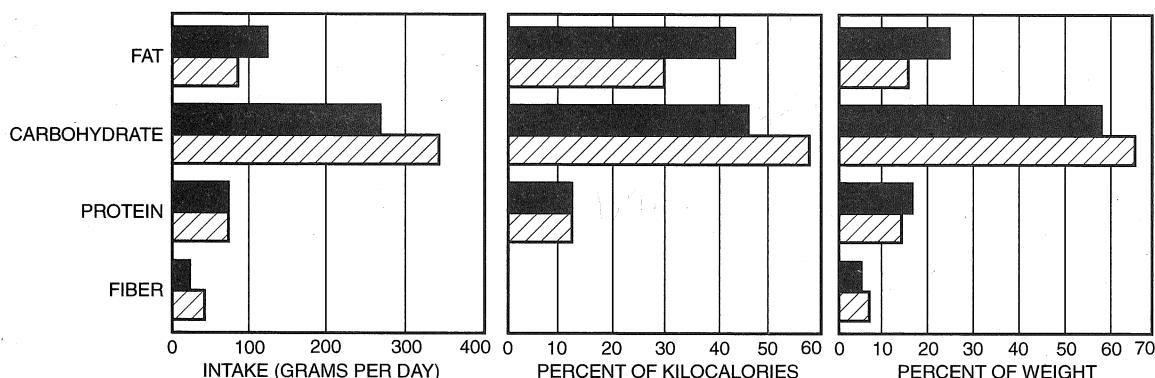


Illustration by Andrew Christie from "Diet and Cancer," by Leonard A. Cohen. Copyright © November 1987 by *Scientific American, Inc.* All rights reserved.

- If the recommendations of the National Research Council were followed, people would eat:
 - more protein and less fiber.
 - more protein and less fat.
 - more carbohydrate and less fat.
 - more fiber and less protein.
- Comparison of the charts shows that:
 - most of our food energy comes from proteins.
 - we now get much more of our energy from carbohydrates than from fats.
 - we cannot increase our energy intake by eating more fiber.
 - the quantities of fats and carbohydrates in our present diet are approximately equal.
- According to these recommendations, what comment can be made about the present American diet?
 - It is overloaded with carbohydrates.
 - It has too much fiber.
 - It does not have enough fat.
 - It contains the proper amounts of proteins.
- If the recommendations for a changed diet were followed, our diet would have about:
 - four times as much carbohydrate as fat.
 - two and a half times as much carbohydrate as fat.
 - equal amounts of carbohydrate and fat.
 - nearly twice as much carbohydrate as fat.
- Comparison of the percent by weight of the different nutrients in the diet and the percent of energy each supplies shows that:
 - 1 gram of fat supplies more energy than 1 gram of carbohydrate.
 - 1 gram of carbohydrate supplies more energy than 1 gram of protein.
 - 1 gram of protein supplies about three times as much energy as 1 gram of fiber.
 - 1 gram of carbohydrate supplies more energy than 1 gram of fat.

4**4****4****4****4****4****4****4****4****4****4****4****Passage II**

A bacteriologist is investigating the use of glucose by a type of bacterium as a source of energy in spore formation.

Experiment 1

The bacteria are grown in a nutrient solution containing a supply of glucose. When the glucose has been largely depleted, the contents of each cell shrink away from the cell wall and form a spore, which is highly resistant to environmental damage of all kinds.

Experiment 2

A culture of the bacteria is grown in a medium containing little glucose. The bacteria use the glucose as they grow, but do not form spores when the glucose has been depleted.

Experiment 3

A culture is grown in a medium containing ample glucose, but the cells are removed while there is still plenty of glucose in the medium. They are placed in distilled water, and form spores in about 13 hours.

Experiment 4

As in Experiment 3, cells are transferred from a glucose-rich medium to distilled water. If glucose is added to the water 5 hours later, the cells never form spores. If glucose is added 10 hours after the transfer, spores form 3 hours later.

6. Comparison of Experiments 1 and 2 shows that:
 - F. glucose is necessary for the bacteria to grow.
 - G. the process of spore formation needs a good supply of glucose.
 - H. bacteria can protect themselves against unfavorable conditions by forming spores.
 - J. spore formation is inhibited by large concentrations of glucose.

7. A reasonable hypothesis from Experiment 3 is that:
 - A. distilled water promotes the formation of spores.
 - B. distilled water retards the formation of spores, but does not prevent it.

- C. bacterial cells store enough glucose to form spores.
- D. bacterial cells are able to form spores without any source of glucose.

8. Experiment 1 indicates that spore formation is stimulated by deprivation of glucose. Considering the results of Experiment 4, how long must this deprivation continue?

- F. Less than 5 hours
- G. Somewhere between 5 and 10 hours
- H. More than 10 hours
- J. At least 13 hours

9. In Experiment 4, adding glucose to the distilled water after 10 hours:

- A. causes spores to form 3 hours later.
- B. delays the formation of spores for 3 hours.
- C. speeds up the formation of spores by 5 hours.
- D. has no effect at all on the formation of spores.

10. Which of the following experiments would NOT be useful in efforts to learn more about the way bacteria use sugars in spore formation?

- F. Repeat Experiment 4 adding glucose to the water at various times after transferring the bacteria to distilled water.
- G. Repeat Experiments 3 and 4 using bread molds instead of bacteria as the spore-forming organism.
- H. Repeat Experiments 1 and 2 using other kinds of sugar than glucose as energy sources.
- J. Repeat Experiment 2 using different concentrations of glucose.

11. According to these experiments, what condition must be met in order for this type of bacterium to form spores?

- A. A good supply of glucose in the medium, followed by a period in which there is little glucose
- B. A steady supply of glucose in high concentration
- C. A prolonged period of glucose deprivation
- D. A sudden increase in the concentration of glucose in the medium

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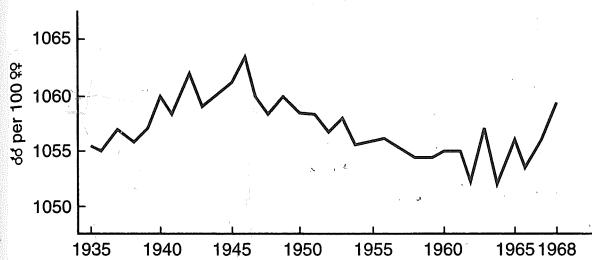
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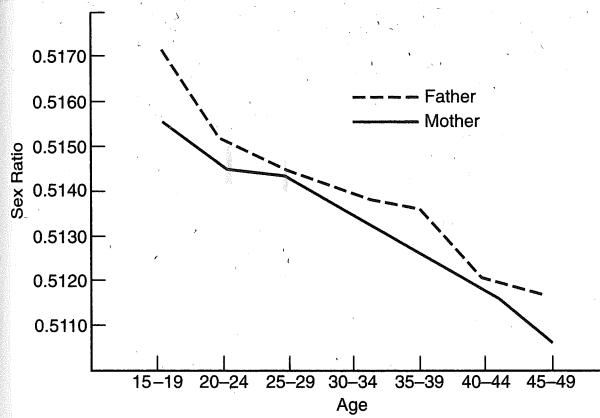
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4**4****4****4****4****4****4****4****4****4****4****Passage III**

The graph below represents the number of boys born per thousand girls in the United States for a period of years (♂ = males; ♀ = females).



The following graph represents the sex ratio at birth as a function of the ages of the parents. (Sex ratio is the fraction of all newborn babies that are male.)



12. The sex ratio in 1946 was:

- F. 1063/2063
- G. 1063/2000
- H. 1063/2
- J. 1063/1052

13. Which general statement is true?

- A. There has been a steady decline in the proportion of male births.
- B. At all times, more boys than girls are born.
- C. The total number of male births decreases with the age of the parents.
- D. Younger parents have more children than older ones.

14. A couple in their early twenties decide that they would like to have a girl. Would it be a good idea for them to wait five years?

- F. No. The probability of having a boy goes up substantially in those years.
- G. Yes. The probability of having a girl goes up substantially during those years.
- H. No. The increased probability of having a girl is too small to make much difference.
- J. Yes. The probability of having a boy goes down substantially during those years.

15. The sex ratio increased during the war years 1940 to 1946, and started to rise again during the Vietnam War in 1967. This increase has been noticed during war years in other countries and during other wars. A possible explanation is that:

- A. many men are killed in wars, so the number of male babies increases to compensate.
- B. as younger men die in the war, more babies are fathered by older men.
- C. prolonged periods of sexual abstinence favor the production of the kinds of sperm that produce male babies.
- D. this may be merely a statistical accident with no real significance.

16. Is it the age of the mother or of the father that is most significant in determining the sex ratio?

- F. The father, since the line for the father lies always above the line for the mother.
- G. The mother, since the line for the mother lies always below that for the father.
- H. They affect the result equally, since both follow the same pattern of decrease with age.
- J. It is impossible to tell from the graphs because people generally tend to marry spouses of about their own age.

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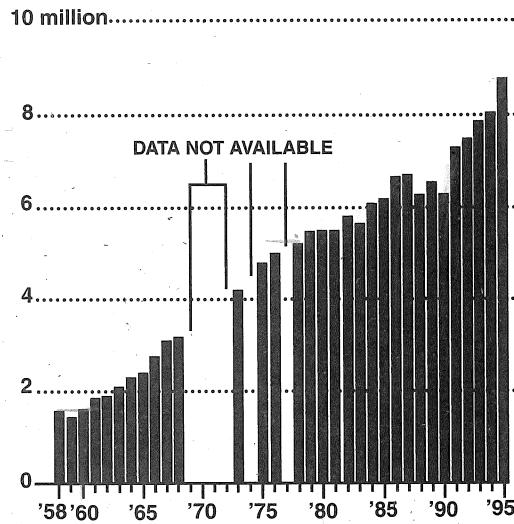
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Passage IV

The chart below gives the number of diagnosed cases of diabetes in the United States from the years 1958 to 1995, and projections for total cases in 2000 and 2025.

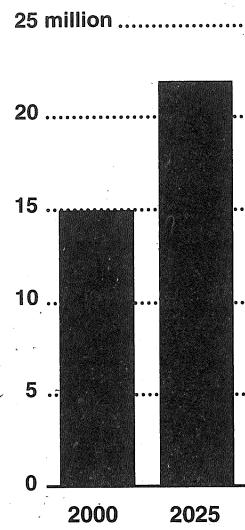
The Diabetes Explosion

Diabetes has skyrocketed in the United States. Below, diagnosed cases over the past four decades



Source: National Institute of Health

Total projected cases, including those that are undiagnosed



The New York Times, September 7, 1999.

17. Between 1960 and 1980, the number of diagnosed cases of diabetes in the United States increased by:
- 1 million.
 - 2 million.
 - 4 million.
 - 6 million.
18. The biggest annual increase in the number of diagnosed cases occurred in:
- 1995.
 - 1991.
 - 1986.
 - 1973.
19. It is projected that the number of undiagnosed cases in the year 2000 will be about:
- 15 million.
 - 13 million.
 - 10 million.
 - 5 million.

20. An important possible source of error in any conclusion reached from the graphs is that:
- data from several years are unavailable.
 - methods of diagnosis may have improved over the years.
 - some years show very little increase, while in others, the increase is large.
 - there is no clue as to the reason for the increase.
21. One assumption made in preparing this chart is that:
- there is some increasing factor in the American lifestyle that promotes the development of diabetes.
 - the trend to increase the incidence of diabetes in the American population will continue for some years.
 - the health of Americans is increasingly at risk from diabetes.
 - undiagnosed cases of diabetes are on the increase.

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Passage V

The ideal gas law is a rule for determining approximately the relationship between volume, pressure, and temperature of a gas. Experiments were done to determine how closely real gases obey this law. These are the gases that were tested, with their respective molecular weights:

Gas	Formula	Molecular weight
helium	He	4
nitrogen	N ₂	28
carbon dioxide	CO ₂	44
xenon	Xe	54
sulfur dioxide	SO ₂	64

Experiment 1

A 1-liter steel cylinder is equipped with a pressure gauge and a thermometer. The cylinder is filled with various gases, in turn, at a temperature of 200 K (-73.2°C). The gases are heated and the pressure is measured at various temperatures. The chart below shows the pressure as calculated from the ideal gas law, and the actual pressures measured at various temperatures.

Temper- ature (kelvins)	Pressure (atmospheres)					
	Ideal	He	N ₂	CO ₂	Xe	SO ₂
200	1.00	1.00	1.00	1.00	1.00	1.00
500	2.50	2.50	2.51	2.52	2.52	2.54
800	4.00	4.00	4.02	4.04	4.05	4.08
1100	5.50	5.50	5.53	5.56	5.57	5.62
1400	7.00	7.00	7.03	7.07	7.09	7.16
1700	8.50	8.50	8.54	8.59	8.62	8.70
2000	10.00	10.00	10.05	10.11	10.14	10.24

Experiment 2

The same gases are inserted, in turn, into a 1-liter cylinder fitted with a piston that can be pushed in to decrease the volume of the gas, thus increasing the pressure. The cylinder is kept in a water bath that keeps the temperature constant. The pressure is measured at various volumes. As before, the value calculated from the ideal gas law is also listed in the table.

Volume (cm ³)	Pressure (atmospheres)					
	Ideal	He	N ₂	CO ₂	Xe	SO ₂
1000	1.00	1.00	1.00	1.00	1.00	1.00
500	2.00	2.00	2.12	1.98	1.97	1.96
250	4.00	4.02	4.25	3.93	3.85	3.82
100	10.00	10.12	12.32	9.01	8.86	8.55
50	20.00	20.52	34.93	15.87	15.28	13.87

22. If a quantity of gas is heated at constant volume, what might result from using the ideal gas law to predict the pressure?
- An incorrect and useless prediction.
 - A small overestimation.
 - A small underestimation.
 - A minor and unpredictable error.
23. Of the gases measured, which behaves LEAST like an ideal gas?
- Helium, always
 - Nitrogen, always
 - Sulfur dioxide always
 - It depends on the nature of the experiment
24. What is the most probable explanation of the fact that no deviation from the ideal gas pressure was found when the volume of helium was reduced from 1000 cm³ to 500 cm³?
- Helium maintains its pressure until its volume is reduced more substantially.
 - There was an unpredicted drop in the temperature during the experiment.
 - Measurements were made only to the nearest hundredth of an atmosphere.
 - Helium is an ideal gas at moderate pressures.
25. As the volume is decreased at constant temperature, what would result from using the ideal gas law to predict the pressure?
- Constant minor overestimation.
 - Either overestimation or underestimation depending on the gas being studied.
 - Constant underestimation.
 - Unpredictably, either overestimation or underestimation.
26. Why does the first row of the data for both experiments show a value of 1.00 atmosphere regardless of which gas was used?
- Every experiment was started arbitrarily at ordinary atmospheric pressure.
 - At low pressure, all gases obey the ideal gas law.
 - Deviations from the ideal gas law are very small at low pressure, and were not detected.
 - This is pure coincidence; that value might be different if other gases were tried.

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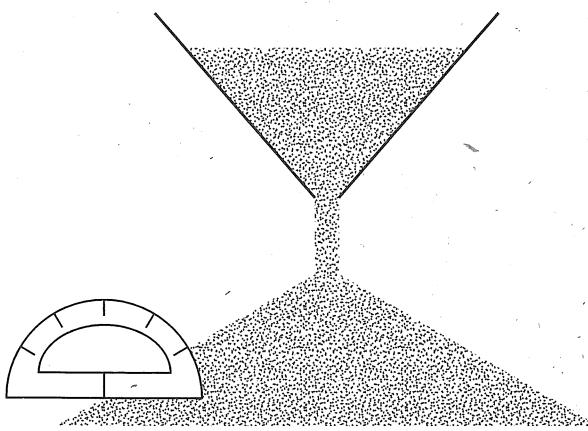
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27. Which of the following hypotheses is suggested by the data?
- The ideal gas law gives the most accurate predictions at high temperatures and pressures.
 - The ideal gas law always gives a good approximation of pressure.
 - As a gas is compressed at constant temperature, its pressure is inversely proportional to its volume.
 - At constant volume, gases with the smallest molecules obey the ideal gas law most closely.

Passage VI

If the highest possible pile is made of a quantity of loose material, the sides of the pile form an angle with the horizontal called the *angle of repose*. This is the largest angle at which the material can remain without having some of it slide down.

The angles of repose of various materials were measured with the apparatus shown in the sketch below. The material, such as sand, is placed in a hopper and then allowed to flow through an opening until it piles up below. The angle of the side of the pile is then measured.

**Experiment 1**

Smooth, dry, quartz sand, of water-abraded, rounded grains, is sieved and sorted according to size. Each size, separately, is fed into the hopper, and the angle of repose is measured for each.

Grain size (mm)	Angle of repose (degrees)
0.1	18
0.5	20
1.0	23
1.5	25
2.0	28
2.5	30

Experiment 2

Crushed marble, made of dry, sharp-angled fragments of many sizes, is sieved and sorted by size. Each size is then fed separately into the hopper.

Grain size (mm)	Angle of repose (degrees)
1.0	28
1.5	30
2.0	33
2.5	35
3.0	36
3.5	37
4.0	37

Experiment 3

Using the same method, the angles of repose of various other kinds of materials are measured:

Substance	Angle of repose
Crushed marble, unsorted, mixed 1.0–4.0 mm	37
Crushed marble, 3.0 mm, mixed 3 parts to 1 part water	12
Water-abraded sand, 3.0 mm, mixed 3 parts to 1 part water	12
Garden soil, dry	27
Garden soil, slightly moist	46
Garden soil, saturated with water	14

28. The angle of repose depends on:
- the size of the particles only.
 - the particle shape and water content of the material only.
 - the particle size and shape and the water content of the material.
 - the particle size and water content of the material only.

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29. The experimenter compares the results of Experiments 1 and 2, and concludes that the angle of repose is larger for sharp-angled than for rounded particles. This conclusion might be challenged because:
- there was no control of the chemical composition of the material.
 - no experiments were done with rounded particles larger than 2.5 mm.
 - no experiments were done with angled particles smaller than 1.0 mm.
 - all angles of repose were measured as accurate to only the nearest whole degree.
30. What is a reasonable hypothesis based on the trials in Experiment 3?
- Wet sand will pile up in taller piles than an equal quantity of dry sand.
 - As a pile of water-saturated garden soil dries out, it will slump to form a lower, wider pile.
 - Natural abrasion of sand, mixed with water, causes its angle of repose to decrease.
 - In a dry sample of mixed sizes, the angle of repose depends on the size of the largest fragments in the mixture.
31. In hilly or mountainous regions, landslides occur during the rainy season. According to the results of these experiments, why is this so?
- Water flowing downhill carries soil along with it.
- B. When materials are mixed with water, the angle of repose becomes smaller.
C. Water abrades the soil particles and makes them smooth and round.
D. The slope of the hillsides is less than the angle of repose in the dry season.
32. The results of Experiment 2 suggest a relationship between angle of repose and particle size of angled fragments. What additional kind of material might be used to test this hypothesis?
- Crushed feldspar, sorted at 3.0 mm
 - Marble particles 3.0 mm wide, abraded to produce rounding
 - Sharp-angled marble fragments 5.0 mm wide
 - Rounded marble particles 3.0 mm wide
33. A company in the business of supplying building and paving materials keeps various kinds of sand and gravel piled up in storage. For equal amounts of material, which of the following materials would use the largest amount of land space?
- Beach sand, consisting of rounded grains
 - Builders' sand, consisting of sharp-angled grains
 - Crushed stone, consisting of sharp-angled particles
 - River gravel, consisting of well-rounded particles

Passage VII

People, especially women, tend to lose bone density as they get older, a condition called osteoporosis. Bones weaken and break easily. Two scientists disagree on whether drinking milk is a good way to help avoid the condition.

Scientist 1

For years, nutritionists have been saying that older people, especially women, should drink milk as a protection against osteoporosis. The theory is that milk is a rich source of calcium, which is a crucial element in the building of bones. However, there is reason to doubt that adding milk to the diet is of any value. In many countries, such as China, the dietary intake of dairy products is very small, yet the Chinese have lower rates of osteoporosis than countries where the diet is rich in calcium. Additional evidence comes from a 12-year study of 78,000 nurses, which suggests that milk is of no value. This study found that those who drank two or more glasses of milk a day actually had a slightly increased rate of bone fractures. The reason seems to be that milk is a high-protein food, and other studies have shown that high levels of protein in the diet make the blood more

acid, which tends to remove calcium from the bones. Calcium is only one factor in maintaining bone health; bone building depends not only on calcium in the diet, but also phosphorus, magnesium, zinc, and vitamin D, which are not present in milk. You can get these, and all the calcium you need, from green vegetables, nuts, and beans. Milk is high in fat, and even without milk, there is too much fat in the American diet. A good diet, and avoidance of smoking and excess alcohol consumption provide the best protection. It also helps to have the right genes, but there is nothing you can do about that. What you can do, most of all, is exercise. Muscles exerting forces on the bones stimulate the strengthening of the bones, and this is the most important element in any program to avoid osteoporosis.

Scientist 2

A good supply of calcium in the diet is important not only to maintain strong bones, but also for proper functioning of muscles and nerves. Milk is rich in calcium, and should be used by people growing older. The statistics for Chinese women are misleading; these are mostly rural women, whose high level of physical activity keeps

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their muscles and bones healthy. The nurses' study had a basic flaw; its data are questionable because they are based only on what the nurses said. This kind of study is never as valuable as one in which the variables are controlled by the experimenter. In a well-controlled study of 1800 elderly French women, it was shown that those who took calcium supplements had 30 percent fewer hip fractures than those who took placebos. Dozens of other well-designed studies have shown the same relationship. Exercise is vital, but one study showed that it is of no value unless the subject gets at least 1100 milligrams of calcium a day. A pint of milk supplies half of that. Anyone can avoid taking in excess fat with the milk by drinking fat-free milk. While vegetables in the diet are important sources of other vitamins and minerals, it is difficult to get enough calcium and vitamin D from vegetables. Vitamin D is needed for the body to incorporate calcium into the bones, and all our milk now contains added vitamin D. The effect of dietary protein on bone density is still an open question, raised chiefly by ideologically committed vegetarians. In any event, even a pint of milk a day supplies only a small part of the usual intake of proteins. There is still no reason to challenge the time-honored recommendation of nutritionists that older people should drink more milk.

34. The two scientists agree that:
- F. protein is an important component of a healthy diet.
 - G. milk contains an element important for maintaining bone density.
 - H. older women should take artificial calcium supplements.
 - J. vegetables are a good source of the minerals needed for good bones.
35. The chief point of contention between the two scientists is whether:
- A. vitamin D is important for maintaining bone health.
 - B. proteins promote osteoporosis.
 - C. milk contains a good amount of calcium.
 - D. the benefits of milk outweigh its disadvantages.
36. Scientist 2 questions the value of the study of drinking milk in the nurse group because:
- F. nurses are a special group with unique dietary habits.

- G. the data on which the conclusion is based are unreliable.

- H. no attention was paid to the kind of milk that the nurses drank.

- J. no attempt was made to evaluate the level of physical activity of the subjects.

37. Scientist 2 questions the importance of the observations about Chinese women because:

- A. there is an uncontrolled variable in the study.

- B. the sample was too small to be meaningful.

- C. it was not possible to get accurate data.

- D. there was no control group.

38. Scientist 2 expresses doubts about the relationship between osteoporosis and proteins in the diet because it seems that:

- F. the studies done to test the hypothesis were not adequately controlled.

- G. the nutritionists who foster the idea that proteins promote osteoporosis are not unbiased.

- H. no rigid tests were done to find out whether proteins make the blood more acid.

- J. it is well known that proteins are a vital part of any balanced diet.

39. Both scientists would probably agree that one action older women should take to deal with the osteoporosis problem is to:

- A. eat less high-protein food.

- B. take calcium supplements.

- C. drink only low-fat milk.

- D. get regular bone-density examinations.

40. Scientist 1 could question the position of Scientist 2 if:

- F. Scientist 2 has a history of support for vegetarianism.

- G. the studies quoted by Scientist 2 were funded by the Dairy Institute.

- H. new controlled studies showed that an excess of calcium in the diet leads to heart problems.

- J. the National Institutes of Health issued a strong warning against having too much fat in the diet.

**END OF TEST 4
STOP! DO NOT RETURN TO ANY OTHER TEST.**

4**ANSWER KEYS AND ANALYSIS CHARTS****MODEL ENGLISH TEST**

1.	D	16.	G	31.	D	46.	F	61.	C
2.	H	17.	A	32.	J	47.	B	62.	J
3.	A	18.	G	33.	D	48.	F	63.	B
4.	J	19.	D	34.	H	49.	C	64.	H
5.	C	20.	H	35.	A	50.	J	65.	B
6.	J	21.	B	36.	H	51.	D	66.	H
7.	C	22.	H	37.	B	52.	H	67.	B
8.	J	23.	C	38.	F	53.	B	68.	G
9.	D	24.	F	39.	B	54.	J	69.	A
10.	H	25.	B	40.	H	55.	A	70.	J
11.	B	26.	J	41.	A	56.	H	71.	D
12.	H	27.	B	42.	F	57.	D	72.	G
13.	C	28.	G	43.	D	58.	H	73.	C
14.	F	29.	C	44.	H	59.	B	74.	H
15.	C	30.	H	45.	A	60.	H	75.	B

Analysis Chart

Skills	Questions	Possible Score	Your Score
Usage/Mechanics			
Punctuation	3, 9, 14, 17, 24, 48, 55, 62, 66, 68	10	
Basic Grammar and Usage	1, 2, 6, 19, 21, 23, 34, 50, 53, 69, 70, 71	12	
Sentence Structure	8, 11, 26, 29, 31, 39, 41, 43, 44, 49, 51, 52, 56, 57, 58, 59, 63, 67	18	
Rhetorical Skills			
Strategy	4, 5, 10, 13, 18, 30, 35, 38, 47, 65, 72, 73	12	
Organization	7, 15, 20, 25, 27, 28, 42, 45, 64, 74, 75	11	
Style	12, 16, 22, 32, 33, 36, 37, 40, 46, 54, 60, 61	12	

Total: 75
 Percent Correct: _____

MODEL MATHEMATICS TEST

1.	D	13.	A	25.	B	37.	B	49.	C
2.	H	14.	J	26.	F	38.	J	50.	K
3.	E	15.	B	27.	C	39.	C	51.	C
4.	K	16.	H	28.	H	40.	K	52.	K
5.	D	17.	D	29.	A	41.	D	53.	C
6.	K	18.	G	30.	G	42.	F	54.	J
7.	A	19.	C	31.	B	43.	D	55.	E
8.	J	20.	H	32.	H	44.	H	56.	J
9.	E	21.	B	33.	A	45.	C	57.	D
10.	G	22.	F	34.	K	46.	H	58.	F
11.	A	23.	B	35.	D	47.	C	59.	D
12.	H	24.	J	36.	H	48.	H	60.	K

Analysis Chart

Content Area	Skill Level			Possible Score	Your Score
	Basic Skills	Application	Analysis		
Pre-Algebra Algebra	1, 8, 15, 27, 45, 52, 53, 55	2, 3, 6, 9, 13, 16, 23, 31, 34, 35, 37, 39	4, 11, 25, 28	24	
Intermediate Algebra Coordinate Geometry	17, 29, 30, 44, 48, 51, 56	5, 7, 22, 24, 26, 32, 57	18, 19, 41, 47, 60	19	
Geometry	10, 38, 40, 43, 50	12, 14, 21, 33, 36, 42, 54, 58		13	
Trigonometry	20, 46	49, 59		4	

Total: 60

Percent Correct: _____

MODEL READING TEST

1.	A	11.	A	21.	C	31.	C
2.	J	12.	H	22.	J	32.	H
3.	C	13.	D	23.	A	33.	D
4.	G	14.	H	24.	F	34.	G
5.	D	15.	D	25.	D	35.	D
6.	F	16.	F	26.	J	36.	F
7.	A	17.	B	27.	A	37.	A
8.	G	18.	F	28.	F	38.	H
9.	D	19.	B	29.	B	39.	A
10.	F	20.	H	30.	J	40.	G

Analysis Chart

Passage Type	Referring	Reasoning	Possible Score	Your Score
Prose Fiction	11, 14, 15, 17	12, 13, 16, 18, 19, 20	10	
Humanities	3, 4, 7	1, 2, 5, 6, 8, 9, 10	10	
Social Sciences	22, 24, 27	21, 23, 25, 26, 28, 29, 30	10	
Natural Sciences	32, 33, 38, 39	31, 34, 35, 36, 37, 40	10	

Total: 40

Percent Correct: _____

MODEL SCIENCE REASONING TEST

1.	C	11.	A	21.	B	31.	B
2.	H	12.	F	22.	H	32.	H
3.	D	13.	B	23.	D	33.	A
4.	F	14.	H	24.	H	34.	G
5.	A	15.	C	25.	B	35.	D
6.	G	16.	J	26.	F	36.	G
7.	C	17.	C	27.	D	37.	A
8.	G	18.	G	28.	H	38.	G
9.	D	19.	D	29.	A	39.	D
10.	G	20.	G	30.	J	40.	G

Analysis Chart

Kind of Question	Skill Level			Possible Score	Your Score
	Understanding	Analysis	Generalization		
Data Representation	1, 12, 13, 17, 18	2, 3, 16, 19, 20	4, 5, 14, 15, 21	15	
Research Summaries	6, 22, 23, 26, 28	7, 8, 9, 24, 25, 29	10, 11, 27, 30, 31, 32, 33	18	
Conflicting Viewpoints	34, 35, 36	37, 39	38, 40	7	

Total: 40 _____

Percent Correct: _____

Answer Explanations: ENGLISH TEST

- D The singular subject *one* requires a singular verb, so A and C are wrong. Choice B is incorrect because both the verb *totaled* in the same sentence and the verb in question refer to the year 1999, which is in the past.
- H An objective-case pronoun is required after the preposition *of*; hence choices F and G are wrong. The comma in G and J is unnecessary.
- A The dash is appropriately employed here to dramatize the pathos of *or can*.
- J The first sentence of the paragraph mentions *images*, and therefore calls for description.
- C To present an orderly and economical review of both nursing home extremes, with details characteristic of each type, the best choice of those given is the comparison/contrast strategy.
- J The adverbial clause *than they once were* helps maintain the sequence of tenses in this paragraph.
- C This passage is characterized by quick summaries and sparse detail. It would not be consistent with the rest of the passage to include detailed material.
- J The clause *many of them are unclean and unhealthy* is the best choice because the pronoun *them* refers to the existing *nursing homes*; the other choices introduce a new subject.
- D Parallel adjectives occurring before a noun must be separated by commas.
- H The paragraph is about conditions within nursing homes; the other options touch on related but basically irrelevant subject matter.
- B If the noun *qualities* is used as the subject (A and C), the introductory phrase becomes a dangling participle. *Interested parties* is a better choice of subject than *the patient* (D) because, as the passage makes clear, choosing a home is usually a family undertaking.
- H The phrase *behooves us* (F) is archaic; *best suits us* (G) and *is not a bad idea* (J) depart from the serious tone of the passage.