

Beat The Stuyvesant High School Exam

by Tom Mathew

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Second Edition

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The Physiological Aspects of Standardized Testing

Students often wonder why they fail on exams even when they are well prepared. It is naive to think that there was a brain fart prior to the exam. In this chapter, we will explain the physiology of test taking and advise you as to how to improve your chances for success. The chapter following this will talk about the mental (not studying) aspects of test taking.

Diet is one aspect of the test taking experience that parents and children can easily control. This is hard for most parents to realize, but the diets of most Asian-American children have higher protein, higher complex carbohydrates and significantly lower fat than the typical American diet. What is hard to understand is that test taking stress can be reduced significantly by reducing fats, sugars and caffeine from your kid's diet.

On standardized testing days in 2003, BeatTheTest™ observed scores of kids who had not eaten breakfast prior to the exam or had eaten right before they were allowed into the school building. If they had eaten before, it was most likely fast food or a bagel with cream cheese and some milk. Some had an artificially sweetened soda or drink with them. The problem is that the meal that they had before the test will most likely shut their brain off around 10:00 am.

After the body digests what it can in the stomach (simple proteins and simple sugars), it sends all the fat and complex nutrients to the small intestine. Students who ate those two fried eggs with ham and cheese are suddenly feeling heavy when the exam papers are handed out (after 9:15 am). The caffeine and sugar highs are wearing off and they suddenly are feeling depressed. Complex lipids (fat molecules) enter the blood stream. They race to build up the lagging fuel levels due to the lack of energy. By the time these molecules are metabolized into energy, you are well into another section of the exam. Now 11:00 approaches and suddenly hunger pangs set in. Most parents are not aware that processed flour makes children feel hungry long before they are hungry.

Your child is looking at the question paper and it appears fuzzy. The words seem to be slipping off the page. Neurotransmitter levels have decreased. Lactic acid builds up, and a mild depressive state slowly sets in. “I don’t know this stuff,” she says to herself. The fat from breakfast is being digested. Blood flows to the gastric tract to absorb the huge cholesterol molecules. Light-headedness sets in. And your kid yearns for sleep. Slowly, out of nowhere, hunger pangs set in. The words are now replaced with thoughts of food. Surprise, surprise. Your kid bombed.

Fact: There are few fat kids who do well on standardized testing.

Compare what was described above to the Asian-American students (consisting of Chinese, Indian, and Korean kids) who arrived earlier and who have eaten a low fat, protein-rich meal the night before. They have slept a full eight hours and completed their REM sleep cycle. They have visualized success countless times (see “The Psychological Aspects Of Testing”). They have eaten a hearty breakfast—light in oils and saturated fats.

These kids have departed for the exam with plenty of time to spare and arrive before 8:00 for an exam that takes place at 9:00. When they get to the exam they are not engaging in useless conversation. Very serious students. Very serious about success.

Around 10 A.M., due to the low fat meal they ate, neurotransmitters are at peak levels for test taking. Critical problem solving is enhanced in the brain by the low levels of caffeine in the body. The brain is relaxed and humming. Logic problems are a breeze. The most boring essay reads like Keats on a summer outing. Around 11:00 blood rushes to the small intestine to pick up nutrients. Insulin levels are level. Hunger is not instigated. The liver releases additional glycogen. Balance is maintained. Lactic acid balances are stable. The brain continues to hum. Sweat is released optimally. The exam is over. Guess what? They passed.

Now how are you going to combat these kids if your kid is busy eating french fries and filling himself up with sugar? Well, you can teach your kids new habits, as opposed to chastising them. Teenagers are very malleable. Here is what we recommend:

Diet and Nutrition

Reduce caffeine and sugar intake sixty days prior to exam

Have breakfast earlier in the day

Have lunch later in the day

Keep kids away from second hand cigarette smoke

Exercise

Exercise at least one half hour per day

Proper Sleep

Eight hours of sleep per day thirty days prior to exam

The above routine can be set 60 days prior to the exam. That means that by the first week of September, you will need to modify your child's diet as follows:

Start Reducing Fatty Oils And Processed Flour From Their Diet Gradually.

You will replace them with lighter oils and whole grains. In the first few weeks, they will complain because of the different taste. However, you have watched their calorie intake and it is the same. As a parent, you will have to break the vicious processed flour and sugar habits of your children. This is not like narcotics addiction. However, when your kid complains that they are hungry it is because they are addicted to the sugars in the foods. It will take at least three weeks to wean them off of cakes, cookies and sugar cereals.

Get Your Kids Off Caffeine. It Is A Stimulant That Has Adverse Effects On Critical Reasoning. In Addition, It Can Heighten Panic And Disruptive Thoughts. Caffeine WILL REDUCE Your Child's Ability To Critically Reason.

Most parents will say that their kids do not drink coffee or tea—so how can they be addicted to caffeine? Caffeine is in most drinks that children imbibe today, and the level of caffeine does not have to be disclosed on the nutrition food labels. If your child drinks 48 to 60 ounces of soft drinks a day, he can easily ingest over 200 mgs of caffeine (enough to induce spontaneous abortion in a pregnant female). Even caffeine-free means that a drink may be 97-98% caffeine free. A twelve-ounce can of cola contains over 50 milligrams of caffeine. Many candies also contain caffeine.

Why is there caffeine in most drinks? Because caffeine is a stimulant and it is highly addictive. Once the stimulant wears off, a mild depressive state sets in. This induces your child to crave more caffeine. That is why your kid wants to drink more soda after they just had a glass . (Here's an interesting experiment: see how many glasses of water your child will drink, if they only had water to drink?). Unfortunately, the human body is highly resourceful and builds up a natural tolerance for stimulants. Thus, it takes more caffeine to keep your child stimulated as time goes on.

Caffeine upsets the normal sleep cycle of your children, induces fat buildup (and puts cellulite on female thighs), and has mild depressive aspects as well. But worst of all, it does not enhance problem solving ability or critical thinking processes. Rather, it can make a test taker more nervous and irritable.

Caffeine has to be broken down by the liver. Urinating cannot eliminate it. However, the human body is not aware of this and it continually tries to eliminate the pesticide by urination. And it will drive your child to use the bathroom. Using the bathroom during a standardized exam will result in the loss of critical minutes.

You should only reduce your child's caffeine intake levels if you have at least 60 days prior to the exam date. If this is not the case, do NOT reduce your child's caffeine intake three weeks or less prior to the actual exam date. Your child may enter a mild depression that may not be resolved prior to the exam.

You are probably asking yourself, "Why don't the other test services recommend this?" Other test services are ignorant of the effects of caffeine on adolescents. And some of BeatTheTest™'s competitors are large media companies whose largest advertisers are the soft drink manufacturers. The fact is that there is not one media company brave enough to stand up to the soft drink manufacturers and ask them why caffeine, a mild pesticide, is continually added to children's drinks and candies.

Reducing the level of caffeine in your child's diet can also enhance weight balance as well as significantly reduce the risk of juvenile diabetes and Attention Deficit Disorder (ADD). It amazes us at BeatTheTest™ that parents do not look at their European and Asian counterparts with respect to disease in children. Children around the world have remarkably lower levels of ADD and juvenile diabetes than American kids. Furthermore, few people outside of the United States have ever seen a 200-pound teenager.

Stop Smoking Cigarettes.

Cigarettes release benzene, nicotine and tar, as well as toxic sulfur and nitrogen compounds. These compounds restrict oxygen uptake in young children, and cause other significant health problems. Benzene and nicotine are known carcinogens as well. More importantly, they reduce capillary dilation, resulting in reduced blood flow to the brain. We firmly believe at BeatTheTest™ that low cerebral blood flow equals slower problem solving ability.

Have Breakfast Earlier In The Day

Most standardized exams start at 9:00 am. You need to get to the exam by 8:00 am. Unless you live near the testing sites you will need to eat by 7:00 on the day of the exam. The human body cannot react quickly to diet changes, so you will need to trick your body into eating earlier. This way, your child's body can digest proteins as she is sitting in the exam room.

Please realize that your child's energy levels will deplete quickly. Your child is a teenager. Her glycogen and energy stores from the previous day will metabolize quickly due to the extreme stress she is under. The only way she will have more energy is to make sure food is being transported from her stomach to the small intestine by 10:00. Children can easily eat at 7:00. However, they can only eat at this time if they have a regular level of sleep.

Sleep Eight Hours A Day Each Day 30 Days Prior To The Exam.

Sleep is very important. It is during sleep that the body grows. It is during sleep that new neurons are built into the brain. New folds also appear in the brain during sleep. These folds act in a similar manner to random access memory (RAM) in a computer. They enable the human computer—the living brain—to process more complex mathematical data. **Eight hours of sleep is absolutely important.**

It is imperative that your child enters and exits the full REM cycle of sleep. REM or rapid eye movement sleep is when the brain grows and builds on experience. It is also the realm of your child's Achievement Mechanism (see Chapter Three, "The Psychological Aspects of Testing", below). This level of sleep cannot be achieved unless the child can actually sleep eight hours a day.

Parents often say that their children cannot sleep eight hours. Children will easily sleep eight hours if you reduce the amount of caffeine and processed flours in their diet. Try it and see how well it works. This is also why most kids cannot wake up on time the day of the exam.

Get Thirty Minutes Worth Of Vigorous Exercise Each Day

Exercise can help the body eliminate toxins as well as poisonous thoughts. It can also assist in maintaining optimal levels of Achievement Mechanism-oriented neurotransmitters in the brain. This will permit clearer thinking and more efficient blood flow to the brain. Thirty minutes of basketball, baseball, dancing, fast-walking or bicycle riding is sufficient. Exercise will also tire your child, and it will enable him to fall asleep on time in the evening.

Your child, however, will not get tired if he continues to drink caffeinated drinks after exercising.

Push Lunch Out To 1:00 pm

The reason for this is that your kids need to build discipline for the exam. They cannot eat when they feel hungry during the exam. If your child feels hungry during the exam, she will perform poorly. Most kids, when they get hungry, panic and get frustrated. So help them out. Teach them to eat earlier in the day and to eat lunch later. This can also help break compulsive eating habits.

The Psychological Aspects of Testing

Freeing Your Child's Achievement Mechanism

All children like to work hard. However, kids are similar to their adult counterparts in that they will always try to accomplish the easiest of a set of tasks first.

Each child has something within her which we at BeatTheTest™ call the Achievement Mechanism. The Achievement Mechanism is a psychological, as opposed to a physical, mechanism. This mechanism can be turned on or off by the child. We have seen that once the mechanism is turned off (as described in the *Crab Bucket Syndrome*), it is very hard for it to be turned back on again without a strong kick-start.

The Achievement Mechanism, when operated properly, will enable your child to achieve goals that they set for themselves. As a parent, you can stoke your child's Achievement Mechanism or you can crush it. A lot of parents, contrary to popular belief, crush their children's Achievement Mechanism by overly criticizing them and by comparing them too often to other children.

Most parents crush their child's Achievement Mechanism by overly criticizing her faults. Extreme examples are parents with military backgrounds (including auxiliary service). Many military parents are unaware that the constant psychological breakdown of the soldier is necessary for a soldier to enter combat. These parents fail to understand that smart people run when confronted with combat; it is the idiot who charges up a hill to shoot someone who has a more advantageous position. Ex-military parents often run a military barracks for a home, where the parents are generals and the children are low IQ foot soldiers. Children have set activity times and set chores. Time schedules are overemphasized. Meals are rationed. Everything the child does is criticized. Physical aspects of the child are never correct. Clothes seem to be rumbled. Hair always appears to be unkempt. The intent of all this criticism is to break the child's individuality down so that she can be prepared for the cruel world outside. We hate to remind these types of parents that your child is very aware of how the world outside

works. They can see it on television or read about it in the newspaper. What we recommend is to lighten up and accept that your kids are not soldiers under your command. Many top colleges are filled with above average IQs and your child will not do well there if all you can do is constantly criticize her.

But worse than excessive criticism are the comparisons parents make to other children. Why cannot you be as smart as your sister Jennifer or be as good in math as your brother Roger? Why cannot you be as witty as Vincent next door? Why aren't you as mature and tall as your cousin Baraka? Your child cannot be like other children because they do not share their genetic makeup or their life experiences. When it comes to other people's children, the reality is that they have a different set of parents than your children do.

Children do not like to be compared to other children. They do not compare you to other parents. The reason is simple; they have accepted you as their guardian and there is nothing a child can do to change that. Excessive criticism and excessive comparison has a tendency to inhibit and eventually shut down the Achievement Mechanism. So we highly recommend that you avoid these behaviors.

Children need to set long-term goals to keep their Achievement Mechanism going. They are not able to imagine college, let alone graduate school, by themselves. They are just too young. But they can understand the steps necessary for health, happiness and wealth. If you tell your children **not** to work hard now, they will **not** work hard later. Many parents are shocked at the level of success Asian-American students have in school, and are remiss to admit that these children must have set goals that their parents want them to achieve.

The Achievement Mechanism can only be kick started by:

- 1. Setting realistic long-term goals**
- 2. Emphasizing imagination**
- 3. Letting your child take the steps (and also make the mistakes)**
- 4. Encouragement and guidance.**

Setting Realistic Long-Term Goals

As a parent, you need to set realistic goals for your children. These goals must be high, but attainable. Encouraging your child to go to college when they reach the age of 18 is a realistic achievable goal. Setting the goal of getting into Princeton University

at the age of 16 is a ridiculously high goal that few (if any) children in the United States can achieve.

A parent needs to teach his child to imagine achieving that goal. Remind her when she is having breakfast that she needs to go to college . Remind her of it when she does well in school. This can also be referred to as the power of suggestion. Suggest to your children what they can achieve by just working hard. This emphasis in the home will not damage your children when they become adults.

Emphasizing Imagination

Think about the dreams you had when you were hungry just a few hours ago. You may have dreamt of a chocolate bar or a bowl of ice cream or a piece of lasagna. Suddenly you heard your stomach rumble. This is the sound of gastric juices being released into your stomach and your stomach anticipating food coming down your esophagus. Your body reacted as if it had a bowl of ice cream in front of you. Just as you can fool your body about food, you can also trick your brain into seeing and feeling things.

Some kids purposefully do poorly on standardized exams. Fear of being at a large university with children that they did not grow up with is absolutely frightening for the average teenager. This imagined fear then becomes a strong bulwark that they cannot overcome; consequently, they convinced themselves that they could not do well.

Now you the test taker, need to convince yourself that you will succeed on standardized exams.

You need to close your eyes and think about the exam. In your dream, you will see yourself checking off the exam question answer sheet. And you will visualize the Be-atTheTest™ logo in the bottom right hand corner. You will imagine yourself being calm and doing the math on your scratch paper. You will then imagine yourself filling in the boxes of the answer sheet. You will imagine your school assistant principal or guidance counselor congratulating you on how well you did.

You say to yourself that you are not good in math. That is no excuse. It is not as if you are five feet tall and are being asked to dunk a basketball. Imagine yourself teaching word problems to a classroom of fifth graders. Show them how to multiply and divide correctly, and then prove your answers to them.

After you have finished with the fifth grade class, teach a sixth grade class. Remember, you are teaching them in your head. The kids are waiting to hear the tricks and secrets from you. You are their teacher and their guide. Do not fail them!!!

Now visualize teaching a class of eighth and ninth graders. Visualize them asking you how you solved for X. Why does a triangle have only one hundred and eighty degrees? Explain this to them. Once you let your Achievement Mechanism free, your imagination will flourish. Always remind yourself that you can achieve whatever you dream.

Help your daughter imagine success by bringing stories of people like her who have achieved amazing things. Our media are replete with stories of women who have done extraordinary things. Show her pictures of teachers, doctors, lawyers, entrepreneurs, judges and bankers that are women. In today's day and age, we have tons of successful women of all shapes and colors. This will help your daughter correlate success with hard work. Once your child learns to appreciate hard work, she will like it. You will have turned on her Achievement Mechanism.

Show your son images of Ronald Reagan or even Bill Clinton. These two men have achieved amazing things on their own. They did not come from wealthy families. Some would even argue that they did not even have full time parents. So imagine what your kids can do with both parents and our BeatTheTest™ standardized test preparation guides.

Let Your Child Take The Steps

Your child has to take the steps to success. No amount of parenting can help a child achieve goals that they are unwilling to achieve. As a parent, you need to guide them to success. At the same time, you will need to give them room to figure things out for themselves. Your children will make mistakes. Let them make them and own up to them. Children do not have instinct to rely on like animals in the wild. They can only learn from their mistakes. Unfortunately, that is the only way they will learn. By making mistakes, your child will take ownership of their goals. They will value their successes far more when they fully appreciate their failures.

Do not hyperbolize their failures. There are a lot of people in this world who have achieved amazing things after falling flat on their faces. Their failures are not their parent's failures. At the same time, parents must not relive their youth vicariously through their children. Parents are not going to school; their children are.

Encouragement And Guidance

In closing, we want to repeat that your child must want to get into a top college. She must assess her weaknesses (whether it is in math or English) and build a set of attainable goals. She must stoke her Achievement Mechanism by imagining success. Help her learn how to visualize success. She must have the end goal of wanting to go to college. The intermediate steps are up to her.

Sit down with your child and map her goals out. We have suggested a few to get you started. You can fill in the rest with your child.

Life goals that I want my child to achieve:

1. Get into a top college
- 2.
- 3.
- 4.
5. Take IVY Medical School Review or IVY Law School Review
6. Graduate from college

Steps that my child will need to take in order to achieve each of the above goals:

- I. Get into a top college
 1. Buy BeatTheTest™ 1200 Review Books
 2. Take the 1300 Review or IVY Verbal Review
 3. Improve math and English skills
 - 4.

Steps that I (the parent) will do to guide my child correctly

1. Buy BeatTheTest™ study guides
2. Stay out of their way when they make mistakes
3. Remind them to do homework assignments
4. Review homework assignments using BeatTheTest.Com™
5. Use the BeatTheTest.Com™ website to help me be a better nurturer
- 6.
- 7.

Avoid The Crab Bucket Syndrome

Children need to ignore the ignoramuses in their lives. In addition, parents need to teach children how to avoid the crab bucket syndrome as much as they can. Crabs, when they are placed in a bucket, will prevent other crabs from jumping out of the bucket. Some kids do not want you to achieve your dreams because they have not learned to activate their own Achievement Mechanism. They are happy with their lot in the crab bucket.

You do not want to be any of these things. You want people to call you “Doctor” when they address you. Or you may want to have them address you as Honorable or Madame Secretary. You may even want to have various letters next to your name, such as Esq., or MBA or Ph.D. You do not want to refer to downtown Manhattan as the “City”. You want to leave the crab buckets of suburbia. You want to go to best university in America; New York University.

Positive Self Image

Your mind can only work when you have a positive view of yourself and your capabilities. Do not worry if you are tall, fat, short, skinny, shy, etc... Life is not decided, nor will it ever be decided as a teenager. The United States is not Russia or some backward part of the developing world. You must remember these facts.

Our media sends the most twisted images to children. Children are taught they must drink this soda to be cool, have blonde hair to be considered pretty, and be really dumb to be popular. Most of the popular kids in your middle school or high school will be absolute losers in college. And guess what? They most likely will not go to college. Not only did they not buy a copy of the BeatTheTest™ study guide, but they really think their looks will take them places. Not!!!

Exercise And Play So You Can Sleep Eight Hours A Day

Teenagers **must** exercise. Get 30 minutes worth of exercise each day. Exercise allows the body to release toxins through the sweat glands. In addition, it increases neural transmitters that allow the mind to remain calm and sleep better. Furthermore, when they sleep better, they will dream more clearly. Once your child starts dreaming, her Achievement Mechanism will be turned on.

Exercise also allows your child to eat more efficiently and to burn calories more evenly throughout the day. This is important because she will be sitting in the exam room for nearly three hours. She will need to condition her body (along with her mind) for this ordeal long before she gets there.

Recommended exercise routines throughout the week for your child

1. Thirty minutes of basketball
2. Thirty minutes of soccer
3. Sixty minutes of walking
4. Fifteen minutes of jumping rope
5. Thirty minutes of running

Key Points / Notes

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Introducing The Boolean Grid

How can you beat the test? Well you will need to use our methodologies. You also need to read a lot more than you do currently.

e³ stands for **e**valuate, **e**liminate, and **e**lect.

When you are faced with any type of verbal problem, realize this always, the answer is always in front of you.

Beat The Test™ Boolean Grid

The single biggest		
	innovation in testing	
		since the # 2 pencil

**Sorry, but the Boolean grid is available only for
IVY Verbal customers.**

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Tips On Answering The Earth's Hardest English Questions

The secret to success on standardized exams is doing very well on the English section. Most high-scoring students have a voracious appetite for reading. If you are the type of individual that only reads the sides of cereal boxes and the cartoons inside gum wrappers, we at BeatTheTest™ highly recommend that you register for one of our courses.

If you are a student who has an appetite for reading, we recommend that you read the following books over the summer of you freshman and sophomore years. Otherwise you will need to take either the 1300 Review or IVY Verbal.

Title	Author
Julius Caesar	William Shaspeare
The Mahabharata	R. K. Narayan
The Tales of Genji	Murasaki Shikibu
Their Eyes Were Watching God	Zora Neale Hurston
Invisible Man	Ralph Ellison
The Sun Also Rises	Ernest Hemingway
I Know Why The Caged Bird Sings	Maya Angelou
The Jungle	Upton Sinclair
The Grapes of Wrath	John Steinbeck
The Color Purple	Alice Walker
The Catcher in the Rye	J. D. Salinger
Song of Solomon	Toni Morrison
The Great Santini	Pat Conroy
The Wealth Of Nations	Adam Smith
The Protestant Work Ethic	Max Weber
The Great Gatsby	F. Scott Fitzgerald

Title	Author
Leaves of Grass	Walt Whitman
The Art of War	Sun Tzu
The Big Sea	Langston Hughes
Crime And Punishment	Fyodor Dostoevsky
The Will To Power	Friedrich Nietzsche
Bhagavad Gita	Translation by Barbara Miller
The Joy Luck Club	Amy Tan
The Autobiography Of Malcolm X	Alex Haley
The Path To Power	Robert Caro
The Souls of Black Folk	W. E. B. DuBois
The Shame Of The Cities	Lincoln Steffens
The God of Small Things	Arundhati Roy
Black Boy	Richard Wright
The Jewel In The Crown	Paul Scott
The Book Of Proverbs, Holy Bible	King James Ed.
The Old Man And The Sea	Ernest Hemingway
The Stranger	Albert Camus
Macbeth	W. Shakespeare
A Portrait Of The Artist As A Young Man	James Joyce
Henderson the Rain King	Saul Bellow

Title	Author
Tender Is The Night	F. Scott Fitzgerald
Native Son	Richard Wright
The Ramayana	R. K. Narayan
Noble House	James Clavell
The Pearl	John Steinbeck
Wise Blood	Flannery O'Connor
Roots	Alex Haley
Shogun	James Clavell
For Whom The Bell Tolls	Ernest Hemingway
The Tria	Franz Kafka
The Bluest Eye	Toni Morrison
The Power Broker: Robert Moses And The Fall Of New York	Robert Caro
Angela's Ashes	Frank McCourt
The Metamorphosis	Franz Kafka
The Collected Poems of Wallace Stevens	Wallace Stevens
The Prince	Niccolo Machiavelli
The Merchant of Venice	William Shakespeare
The Canterbury Tales	Geoffrey Chaucer
Wuthering Heights	Emily Bronte
David Copperfield	Charles Dickens
The Water Is Wide	Pat Conroy

Title	Author
A Tale of Two Cities	Charles Dickens
The Red Pony	John Steinbeck
Of Mice And Men	John Steinbeck

Many parents may object to some of the above literary works, but you need to understand that the test preparers have read all of the above books. These books are viewed by many as some of the greatest works written in (or translated into) English. So we highly recommend that your kids read some of them prior to taking the exam.

Students should read the texts and pay close attention to interesting passages and focus on how the authors create moods (especially optimism and confusion). As your children read more of the books on the list, be ready for questions about many of the adult situations in the books. Your child, although in the seventh grade, will need help in understanding why adults behave the way they do. The answers are not simple, and unfortunately BeatTheTest™ cannot answer these questions for your children.

We also highly recommend that your children read *The New York Times* and *The Wall Street Journal*. They do not have to read the entire paper. However, they will need to read the editorial pages every day. Editorial pages are full of opinions, and that is what standardized exams test. Most exams confront students with other people’s dubious opinions in order to trick them into answering questions based on emotions, as opposed to the facts stated by the passage. The more students are aware of the one-sided views of adults (what many conservative academics call “right-thinking”), the more they will not be fooled by trick questions. They can then read the paragraph objectively and answer the questions correctly.

The passages that follow are designed to trick you and to confuse you. You will get many of the questions wrong, as the questions are designed to make you think. Don’t get upset. You will find that as you do more questions, the sections will become easier.

Sentence Completions

Try to complete the sentence in your own words. Then look for the pair that closely matches the words you initially put in. Students who enroll in the 1300 Review learn about our innovative transition and continuity identification techniques whereas students who enroll in IVY Verbal Review learn how to use the Boolean Grid and answer the questions faster!

Analogies

Try to make a sentence that utilizes the two words and find a similar relationship in the answer pairs. Students who enroll in the 1300 Review learn techniques to better identify the six different types of American analogies whereas students who enroll in IVY Verbal learn how to use the Boolean Grid and answer the questions faster!

Math Problems

Students who do not know how to solve the math problems need to review their algebra and geometry notes. This prep guide is intended as prep only and it is not a substitute for mathematics instruction.

The Earth's Hardest Math Questions

The problems here reflect the order of difficulty on most standardized exams. These questions test your ability to read the question correctly. Most students are not aware how tricky the wording is. We at BeatTheTest™ recommend that you read through all of the questions first, and then proceed with answering them. Feel free to talk to your math teachers in high school about any questions you got wrong in this book.

1)

$$\sqrt{169} - \sqrt{64} \times 3^3 =$$

I) 135

J) 3,375

M) 45

N) 216

O) -203

2)

In the following equations, what is $2x$ equal to?

$$6x - y = 50$$

$$x + 2y = 69$$

B) 13

D) 14

E) 26

F) 28

G) 3π

3)

What is the sum of $\frac{2y}{4} + \frac{6y}{7}$?

I) $\frac{12y^2}{3}$

J) $\frac{12y}{28}$

M) $\frac{12y^2}{28}$

N) $\frac{6y}{3}$

O) $\frac{38y}{28}$

4)

$$(69 + 2y) - (15 + \sqrt{4}y) =$$

B) $69 - \sqrt{4}y$

D) $54 + 2y$

E) 54

F) $54 + 4y$

G) $69 + 4y^2$

5)

6)

$$\frac{\left(\frac{1}{3} + \frac{2}{37} \right)}{\frac{1}{5}} =$$

B) $1 \frac{104}{111}$

D) $\frac{43}{555}$

E) $\frac{43}{111}$

F) $\frac{104}{111}$

G) $\frac{10}{111}$

7)

If $L = .25$ and $M = \frac{1}{3}$, what is the value of

$$\left(\frac{\sqrt{400L}}{\left(\frac{\sqrt{300}}{M} \right)^2} \right) \times 90$$

I) $\frac{1}{9}$

J) 1

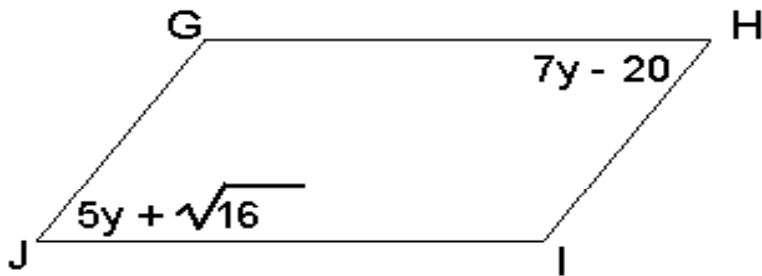
M) 30

N) $\sqrt{\frac{1}{3}}$

O) 90

8)

9)



Parallelogram GHIJ has angle J equal to $5y + \sqrt{16}$ and angle H equal to $7y - 20$. What is the sum of angles G and I equal to?

- I) 180
- J) 128
- M) 116
- N) 360
- O) 232

10)

Point Q is the center of the circle in the adjacent diagram and US is the diameter of the circle. The perimeter of the circle is equal to 12π . What is the area of square LMNO?

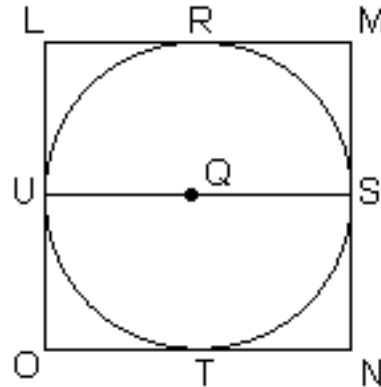
B) 24π

D) 12π

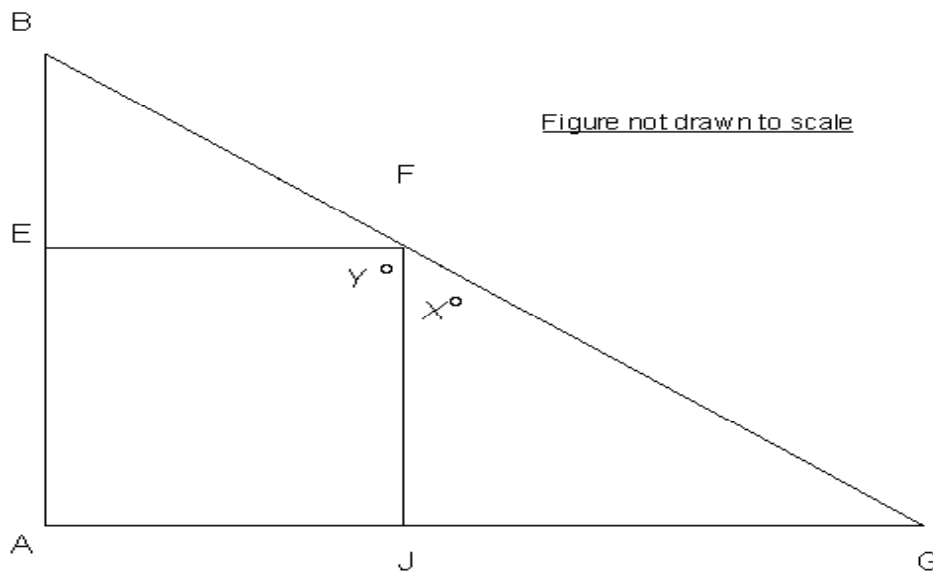
E) 12π

F) 144

G) 144π



11)



I) 75°

J) 83°

M) 45°

N) 72°

O) 90°

In the above figure, if triangle BEF is an isosceles triangle and angle $X = 63^\circ$, what is the measure of angle Y ?

12) In the adjacent diagram, what is angle LMN equal to if angle PON is equal to 136° ?

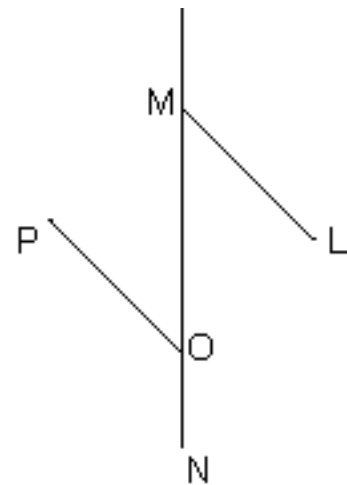
B) 180°

D) 44°

E) $180^\circ - y$

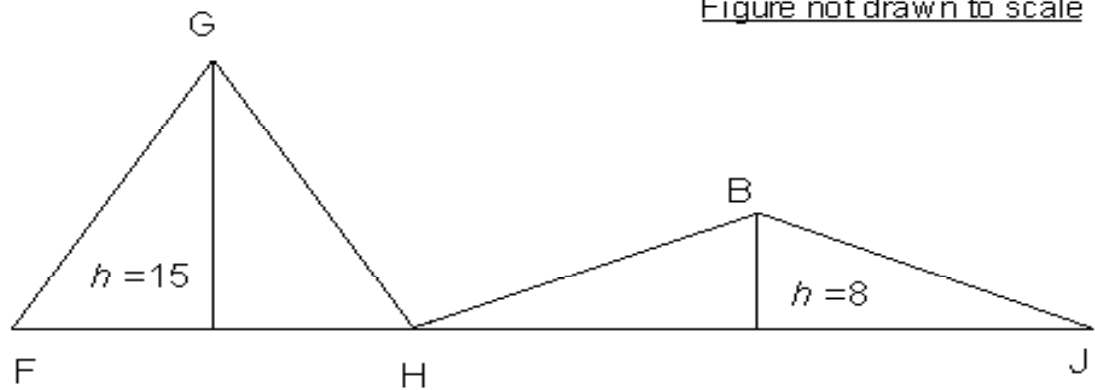
F) 136°

G) Cannot be determined from the data provided.



13)

Figure not drawn to scale



Triangle FGH has an area of 120 and triangle JBH has an area of 176 (the heights are given above). What is the value of $FJ - 20$?

I) 40

J) 60

M) 50

N) 10

O) Cannot be determined from the data provided.

- 14) Out of a gym class of 25 students, $\frac{1}{5}$ of the kids are taller than 5' 4". If three kids join the class, how many students in the class are shorter than 5' 4" if the proportion of tall kids increases to $\frac{1}{4}$?
- B) 1
D) 22
E) 19
F) 14
G) 21

- 15) WX and YZ are parallel lines. Angle A equals 75° and angle B equals 155° . What is angle C equal to?

I) 75°

J) 55°

M) 100°

N) 105°

O) 80°

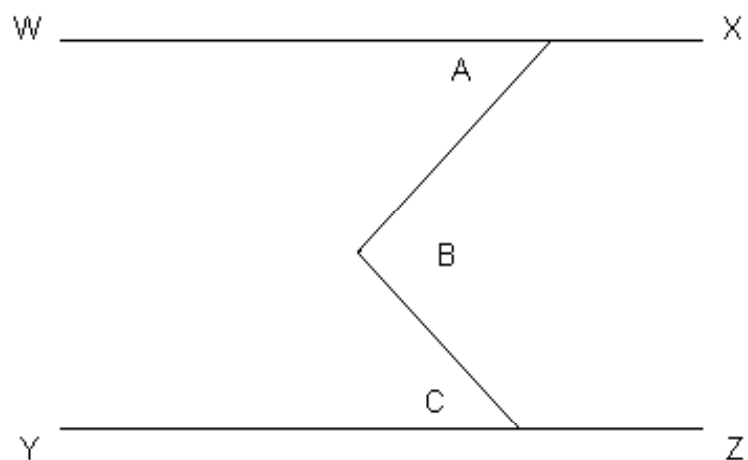


Figure not drawn to scale

16)

17)

Find the length of diagonal WY in rectangle $WXYZ$ to the nearest tenth.

Figure not drawn to scale

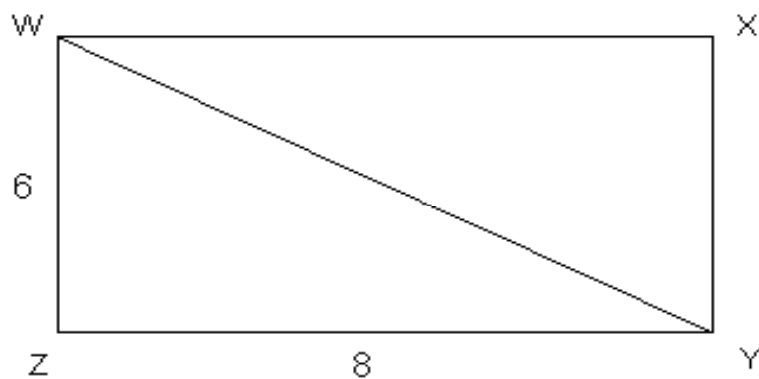
I) 10.1

J) 12

M) 11.2

N) 10

O) Cannot be determined from the data provided.



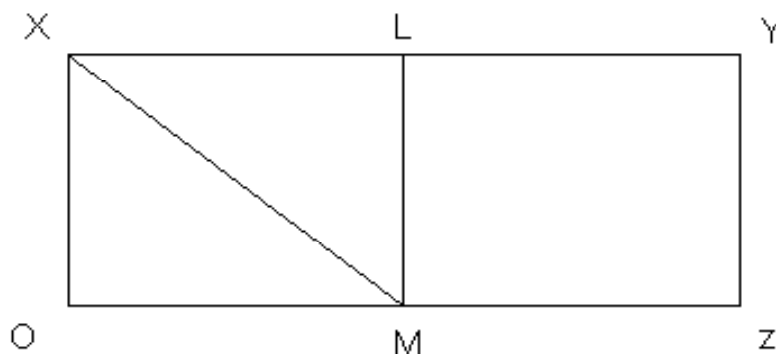
18)

The probability of a ninth grader getting into Mr. Troll's 9th grade drafting class is 5%. 40% of Mr. Troll's students earn a D in the class. The 9th grade has 600 students. How many kids in the 9th grade will **not** get a D in Mr. Troll's drafting class?

- B) 30
- D) 12
- E) 360
- F) 588
- G) 18

19)

Figure not drawn to scale



In the above diagram, quadrilateral OXYZ is a rectangle. Segment LM is perpendicular to OZ. OM is equal to 36 and XM is equal to 45. What is the length of OX?

- I) 25
- J) 35
- M) 27
- N) 36
- O) Cannot be determined from the data provided.

- 20) Chalmers and Janice have identical jobs. Janice's salary, however, is 70% of Chalmers. At the end of each year, both Janice and Chalmers receive a 3% cost of living adjustment. How many years will Janice have to work at this job to out earn Chalmers?
- B) Janice will never out earn Chalmers
- D) 5 years
- E) 7 years
- F) 10 years
- G) Cannot be determined from the data provided.

21)

$$\frac{y+8}{y} + \frac{y-5}{6} =$$

I) $y^2 + 6y + 48$

J) $\frac{2y-3}{6y}$

M) $\frac{y^2+3}{y}$

N) $\frac{y^2+y+48}{6y}$

O) $\frac{3}{6y}$

- 22) On Thursday Joan's mom put $\frac{3}{7}$ of her pay to rent and $\frac{1}{14}$ of it for the gas bill. She then paid $\frac{2}{6}$ for food and electricity. How much of her paycheck is left until she gets paid in another two weeks?
- B) $\frac{7}{42}$
- D) $\frac{2}{6}$
- E) $\frac{7}{14}$
- F) $\frac{3}{7}$
- G) $\frac{1}{12}$

- 23) Anthony and Yuri love to play in their local playground. The playground is near a closed landfill. They have lived near the playground since they were born. For nearly 20 years, toxic heavy metals including mercury and chromium were disposed into the landfill. Assume exposure to 100 micrograms of these metals will result in terrible health problems. In addition, assume $7\frac{2}{3}$ micrograms are absorbed per annum by a child. If Anthony and Yuri are 6 years old now, how many years will it take for the level of these metals to equal 100 micrograms (to the nearest whole year)?

- I) Anthony and Yuri will never reach that level.
- J) 7 years
- M) 1 year
- N) 8 years
- O) 13 years

The Earth's Hardest Comprehension Questions

Comprehension Problems

Marta Suplicy

Often, when an individual wants to achieve extraordinary things that individual will face Herculean obstacles to achieve what to many is viewed as unachievable. Marta Suplicy is an excellent example of a woman who achieved extraordinary things due to her sheer will and desire to improve the lives of the average Brazilian in the city of Sao Paulo.

She campaigned aggressively on a platform of improved educational opportunities and housing for Paulistas (what the people of Sao Paulo call themselves). Her message of equal opportunity was not welcome by many businessmen. Every step of the way she was criticized for many of her stances on marriage, women and children.

Divisive propaganda was placed all over Sao Paulo. Some advertisements indicated, "Don't vote for someone who has used drugs," implying that Suplicy herself was a drug addict. Negative photographs of her were pasted all through Sao Paulo. Her adversaries expected her to behave like the stereotypical media image of a woman; weak-kneed and unable to handle criticism.

Suplicy seemed to relish the negative comments. Many political commentators in Sao Paulo compared her to Hillary Clinton, the former First Lady of the United States. Unbeknownst to the old guard in Sao Paulo, many Paulistas were keen on the comparison. Suplicy's opponents were

unaware of the inchoate rise of a Brazilian form of feminism that was rapidly being accepted and, in some cases, openly welcomed by Paulistas in general.

25 The psychoanalyst-turned-politician did not quit the race, and decided to attack her opponents vigorously. Suplicy characterized her opponents as unmasculine and unfit for the job of mayor, a serious charge in the machismo climate of Sao Paulo. And it worked.

30 The last days of October 2000 marked the emergence of Stanford-educated Marta Suplicy as a force to be reckoned with in Brazilian politics. As mayor of Sao Paulo, she will be responsible for endorsing many of the future candidates for national office. And, like her American counterpart, Senator Hillary Clinton, Suplicy represents the emergence of a new political animal, the very well connected and powerful female legislator.

1. Based on the above passage, the author contends that individuals who want to achieve extraordinary things
 - l. need to go to Harvard University.
 - m. need to revert to techniques utilized by other successful individuals in the past.
 - n. need to let their parents and grandparents help them along the way.
 - o. need to avoid confrontational situations in life.
 - p. need to be persistent and need to be willing to take the offensive in achieving their goals.

2. The author implies in lines 11-13 that political advertising was utilized by Suplicy's adversaries to
 - v. encourage people to vote for Marta Suplicy.
 - w. primarily misinform voters.
 - x. show what the actual positions each political candidate has.
 - y. present positive images of rival candidates.
 - z. make sure that voters focus only on the real issues.

3. Marta Suplicy and Senator Hillary Clinton are similar in what ways?
 - l. Both were ignorant women with little education.
 - m. Both candidates were supported heavily by businessmen.
 - n. Both women knew how to fight back using the media and were very charming.
 - o. Both women were easily frightened by the media.
 - p. Both women were admired by their political opponents.

4. The “inchoate rise of a Brazilian form of feminism,” mentioned in lines 22-24 refers to
 - v. the feminist movement; it was focused and highly regarded by opponents.
 - w. Paulistas who would not vote for a powerful, media-savvy female politician.
 - x. the old guard, like Boss Tweed, who would choose who would represent Sao Paulo.
 - y. a liberalization of Paulistas attitudes towards female politicians that went largely ignored by the old guard.
 - z. peoples votes not being counted fairly by crooked politicians.

5. According to the passage, the “old guard” most likely represents
 - l. powerful right-wing forces in a democracy who protect their self-interests first.
 - m. Nero-like men who live by the saying “do as I say and not as I do”.
 - n. corpulent men who are above the law of man and God.
 - o. old security officers who are forced to work after retirement.
 - p. Cannot be determined from the information provided.

New York City Real Estate

5 During the 1980s, many Americans were alarmed by the acquisition of New York real estate by Japanese industrial corporations. They felt that America was selling out to acquisitive Japanese hordes. Of note was the sale in 1985 of Rockefeller Center to trusts partially owned by Mitsubishi Estate Company. Convinced by everyone involved in the transaction that it was a profitable proposal, the Japanese bought the properties. The trusts had invested nearly \$1.4 billion to acquire control of the property.

10 Unfortunately for the Japanese, a very xenophobic press attacked the sale and set out to alarm the citizenry. The press often quoted politicians’ bombastic allusions to Japanese global conquest: imperialistic Japan was going to take over occidental industry and make the United States into a colony for its exports, according to race baiters. Editorial pages of many newspapers appeared as if they were written in the 1940s as opposed to the 1980s.

15 All this was lost on the typical New Yorker, often referred to in the media as Joe Six Pack, who was often unaware of the fees made by dozens of New York banks and law firms in advising the Japanese on these pur-

20 chases. Joe Six Pack was completely bamboozled by New York-based real estate developers who criticized the Japanese primarily because their own properties had not been involved in the bidding frenzy. He was also unaware that the Rockefeller family was not forced to sell the property to Mitsubishi Estate. Many Rockefeller family members wanted to diversify their family's investments into more liquid investments, and that required the sale of Rockefeller Center.

25 The press did not advise Joe Six Pack that a building could not be taken apart and shipped to Japan. Furthermore, the Japanese had to pay for the building in U.S. dollars and to a U.S. taxpayer. Proceeds from the sale would be ultimately deployed by the Rockefeller family trusts into other, more profitable investments. In addition, Japanese companies would still
30 be required to pay local real estate taxes. Mitsubishi would be forced to operate the building the same way its previous owner had, since it was located in the heart of New York's most prestigious business district.

35 German, British, and Dutch corporations had invested in New York City real estate for decades. Thus, the Japanese were investing in New York City real estate for the same reason that prior investors had; to make a substantial PROFIT over the vast sums invested.

6. What is the antithesis of the argument made by the xenophobic press about Japanese investment?
 - v. Japanese investors often made investment decisions by themselves.
 - w. The Rockefeller family was misled by its advisors.
 - x. Newspapers always tell the truth.
 - y. New York City real estate cannot be owned by foreigners.
 - z. Japanese companies made investment decisions based on prudent evaluation of potential profits.

7. What is the main idea of this passage?
- l. Japanese investors often made shrewd investments in the United States.
 - m. Japanese investments were often wrongly portrayed in the press.
 - n. Lawyers and advisors are paid first.
 - o. New York City real estate is a risk-free investment.
 - p. Media companies are in the business of selling advertising, not news.
8. The Japanese invested in US real estate primarily
- v. to make the United States into a colony.
 - w. to sell Hondas and Toyotas to the tenants.
 - x. because they wanted to get office space for their corporate headquarters.
 - y. to take advantage of the high investment returns available only in the U.S.
 - z. because it was a risky investment.
9. Joe Six Pack, in the above passage, represents
- l. a real estate investment banker.
 - m. an immigrant from England.
 - n. an astro-physicist.
 - o. a beverage vendor.
 - p. an average resident of New York City.
10. Investing money that you borrowed at 1% and making a positive return on your borrowed funds in excess of 10% is an example of
- v. a bad investment.
 - w. an investment with very high returns.
 - x. an average investment.
 - y. an investment that Joe Six Pack has available to him.
 - z. an investment that the Rockefellers would not make.

Japanese Business Practices

U.S.-based multinational corporations have been unable to penetrate the Japanese market successfully for decades. Most executives blame a very uncompetitive distribution structure. The reality, moreover, is far worse as American companies face a Herculean task in Japan.

5 Japan has a unique characteristic that few corporate executives ever are willing to admit; business relationships in Japan are run by the zaibatsu (the large Japanese trading corporations). These companies borrow at
ridiculously low interest rates and at more favorable terms than their American counterparts. Furthermore, they control a labyrinth of distribution chains
10 that are hostile to even Japanese entrepreneurship, let alone U.S.-based corporations.

American corporations face many expensive hurdles to compete effectively in Japan. Firstly, the zaibatsu will only trust the American company if it reveals sensitive manufacturing and trade data. Secondly, the American
15 company must do business with the zaibatsu's subsidiaries (separate companies owned or controlled by the zaibatsu) who are often more expensive than traditional American suppliers. Finally, an American competitor is still required to build large plants and warehouses to assure Japanese customers that they have a local presence in Japan. Consequently, American
20 companies have to dig a very large expensive hole and then spend many years trying to climb out.

Zaibatsu consider these investments to be critical in order to assure the local customer they will be absolutely satisfied with their purchase. One critical mistake that many American executives make is that they fail to comprehend
25 that Japanese appreciate the distribution system in Japan. Consumers endure the high costs of Japanese distribution because they expect the local distributor to replace or repair a product for free, months after they have purchased it. This is unheard of in the United States where goods are only replaced if returned within two weeks or less of the purchase date and
30 only if due to manufacturing defects. Thus, the Japanese regard failure to satisfy the customer completely as anathema to the way they do business.

11. What is the main idea of this passage?
- l. Japan is an easy market for American business to penetrate.
 - m. Foreign corporations in Japan face few hurdles.
 - n. Japanese zaibatsu have limited influence in Japan.
 - o. American companies put the customer first.
 - p. The Japanese market is highly complex and has its own rules that American companies must adhere to in order to be successful.
12. The author contends that US corporations have difficulty doing business in Japan because
- v. they cannot adhere to or accept Japanese rules of trade.
 - w. they cannot speak Japanese.
 - x. they can make more money in Singapore.
 - y. the Japanese prefer cheaper Taiwanese goods.
 - z. the Japanese use the metric system.
13. The zaibatsu will only trust the foreign corporation if it meets all of the following except:
- l. build large infrastructure in Japan
 - m. share manufacturing data
 - n. put the corporation first over the customer
 - o. do business with the zaibatsu's subsidiaries
 - p. share customer and trade data
14. The reader can infer from the last paragraph that American companies typically
- v. believe Japanese return policies to be too generous.
 - w. never replace defective goods.
 - x. view defective goods as the customer's responsibility.
 - y. never manufacture defective goods.
 - z. view the customer as an adversary after the sale.
15. By "American companies have to dig a very large expensive hole and then spend many years trying to climb out," the author is describing
- l. a horticultural procedure.
 - m. construction of a building's foundation in Tokyo.
 - n. Japanese zaibatsu experience in penetrating the American market.
 - o. the very large investment needed by American corporations and the many years it will take to make a positive investment return in Japan.
 - p. the procedure that American corporations face in drilling for oil in the Bay of Bengal.

Science Challenges Accepted Beliefs

5 Where would scientific research be today if religion had completely succeeded in destroying scientific thought? What if Copernicus were unable to postulate that the sun was the center of the planetary system? Why would such a discovery be considered important? Remember that Nicolaus Copernicus published *De Revolutionibus Orbium Caelestium* in 1543. His treatise stated that the sun was the center of our planetary system and that the remaining planets revolved around it.

10 His postulations became known as heliocentric theory, and put the sun as the center of the universe. Prior to his writings, the popular theory during the 16th century was geocentric theory. According to this view, the sun revolved around the Earth, essentially placing all humanity at the center of the known universe.

15 It seems farfetched today but geocentric theory was not readily refuted during the Renaissance because society had no capability to actually see the universe beyond the atmosphere. There were no satellites. Nor were there any high-resolution telescopes. Furthermore, many men who had limited scientific or mathematical training were in positions of immense power, either as kings or as heads of religious groups.

20 Essentially, he confounded the view that human beings were the center of the universe and proposed that the sun was at the center of our planetary system. Heliocentric theory was considered anathema to the teachings of Christian theology, and Copernicus had politely refuted the accepted cosmology of Ptolemy.

25 Copernicus avoided being punished by the Roman Catholic Church by focusing on the findings of prominent philosophers prior to him, men of firm repute accepted by the leadership of the Roman Catholic Church. He surreptitiously reinterpreted prior teachings. In addition, by alluding his discoveries to reputable astronomers accepted by the Church, he was able to establish political techniques that future scientists (such as Galileo and Charles Darwin) could utilize to challenge accepted religious beliefs.

16. Based on the passage, geocentric theory stated
- v. that man evolved from lower forms of hominids.
 - w. that a large explosion occurred billions of years ago causing primordial matter to form.
 - x. that creation science was a clever way to inject religion into the public education system.
 - y. that the planet Venus was the center of the known universe.
 - z. that the sun revolved around the earth.
17. Which of the following statements would not reflect the viewpoints of someone who has accepted the validity behind heliocentric theory?
- l. Humanity is not the center of the universe.
 - m. Man is the most important species, due to his place in the center of the universe.
 - n. The sun is at the center of our planetary system
 - o. The planets revolve around the sun.
 - p. The sun exerts tremendous energy on the planets that circle around it.
18. The passage implies that scientists who discover new theories that circumvent existing religious beliefs will encounter
- v. adulation from their fellow scientists.
 - w. respect and admiration from those whose theories have been disproved.
 - x. censure and often severe punishment from very powerful non-scientists.
 - y. vast fortunes made available to them due to the nature of the patent system.
 - z. tenure opportunities from major European universities.
19. The writer implies in lines 13 through 17 that human society determines scientific fact from fiction based on
- l. what they can actually see with their eyes and what they can understand with their limited scientific knowledge.
 - m. committees of lettered scientists who evaluate their steeped understanding of various sciences.
 - n. detailed evaluation of scientific data.
 - o. deferring to those who are eminently qualified to review the data.
 - p. careful review of an unbiased report which reflects all the facts of the situation.

20. The main idea of the passage above is that
- v. scientific research is not affected by the opinions of powerful megalomaniacs.
 - w. all scientific endeavor must be certified as non-heretical by the Roman Catholic Church.
 - x. Copernicus, in publishing his views on heliocentric theory, took a grave personal risk in order to expand humanity's knowledge-base.
 - y. organized religion is a major proponent of advanced scientific research.
 - z. organized religion leaves science to the scientists.

Answer Sheet is on
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