# 1. Earth Science/Geography/Astronomy

These were first proposed by Apollonius of Perga, who tried to fix theories by Aristotle. Their need was lessened by the work of Copernicus, and the first person to successfully eliminate them from theory was Kepler. Name this object defined as a small circle, the center of which moves on the circumference of a larger circle at whose center is the Earth and the circumference of which describes the orbit of one of the planets around the Earth.

ANSWER: Epicycle(s) (prompt retrograde or deferent)

# 2. Language Arts

Which verb, a synonym of supplant, means to seize and hold in possession by force or without right? It often refers to political actions. Give this word beginning with the letter U.

ANSWER: Usurp

# 3. Geometry/Trigonometry (30 Seconds)

In Triangle ABC, C is a right angle. What is the value of the sine squared of A plus the sine squared of B?



# ANSWER: 1

### 4. United States History

It was the destination for troops after White Marsh, and it was reached about two months after the loss at Germantown. The troops who reached it were famously short on clothing and food. They stayed for six months and received their best training, which was led by the Prussian Baron Von Steuben. Name this encampment in Pennsylvania used during the Winter of 1777-78 by George Washington and his Continental Army.

ANSWER: Valley Forge

### 5. World Literature

Which novel contains the characters Thomas Perez and Marie Cardona? The main character, Meursault, attends his mother's funeral. Meursault is a Frenchman living in Algeria in this novel by Albert Camus.

ANSWER: (The) Stranger (or The Outsider or L'Etranger)

## 6. Chemistry (10 Seconds)

This scientist studied astrology and the treatment of wounds. Considered by some people the father of toxicology, he wrote that the amount of poison ingested is as important as the substance. Name this sixteenth century scientist who thought that alchemists should be more concerned with human health and who encouraged experimentation rather than a reliance on old textbooks.

ANSWER: Paracelsus (or Theophrastus Philippus Aureolus Bombastus von Hohenheim) 7. Pop Culture

(Note to moderator: Hinault is pronounced Eenol, with a soft 1.) What annual event started in 1903 as a publicity stunt for a newspaper? Some of the champions in the last twenty years have included Bernard Hinault, Miguel Indurain, and Greg LeMond. Though it changes every year, it typically takes place over three weeks and includes individual time trials, team time trials, and ordinary stages. Name this bike race dominated recently by Lance Armstrong.

ANSWER: (The or Le) Tour De France

8. Calculus/Combinatorics (30 Seconds)

How many ways are there to line up three identical fruit platters with two identical cookie platters?

ANSWER: 10

### 9. Nonfiction

Who had 427 of his quotations put into a book of 33 chapters? Over one billion copies of the book were printed, almost all of them during the 1960s and '70s. Many of the quotations are in support of Marx and Lenin. Name this man who ruled China from 1945 to 1976.

ANSWER: (Chairman) Mao (Zedong) (prompt on Zedong or Tung)

# 10. Technology

(Note to moderator: The 'O' at the end of the question is the letter O.) Which company makes the Thump? The Thump combines the product this company is best known for with an MP3 player, allowing people to listen to earphones without worrying about either wires or wireless technology. They also block ultraviolet rays and harmful blue light. Name the manufacturer of these five hundred dollar sunglasses bearing their flattened O logo.

ANSWER: Oakley (Thump)

#### 11. Music

Name the person. This musician lived from 1945 to 1981. He and his band's first recorded song was "Judge Not", their first single was "Simmer Down", and their first album was Catch A Fire. The tenth and final album, Uprising, contained "Could You Be Loved" and "Redemption Song". Name this leader of the Wailers who wrote "I Shot The Sheriff" and popularized reggae music.

ANSWER: (Bob) Marley

## 12. Physics (10 Seconds)

They cannot be used to expose film because they do not have the light that they appear to have. They appear when you use a diverging lens or when you place an object within the focal length of a converging lens. Similar rules exist for mirrors, and they are also created by plane mirrors. What are these images that are often contrasted with real images?

ANSWER: Virtual (Images)

#### 13. United States Literature

Which novel contains the quote, "Now, John, I don't know anything about politics, but I can read my Bible; and there I see that I must feed the hungry, clothe the naked, and comfort the desolate; and that Bible I mean to follow"? Much of the novel is about Eliza, who moves North with her son Harry and is eventually reunited with her husband George. Other major characters include Ophelia Saint Clare and Simon Legree. Name this work completed in 1852 by Harriet Beecher Stowe.

ANSWER: Uncle Tom's Cabin

### 14. Art/Architecture

Though pictures of this type have been around since ancient times, their use increased in The Netherlands during the 17<sup>th</sup> century. Many artists pushed the definition by including hourglasses or watches in their works. It has been a part of many movements, including Impressionism and Cubism. What two-word phrase is used for paintings of inanimate objects such as fruit or flowers?

ANSWER: Still Life(s)

# 15. World History

He showed up on April Tenth, 1919 to meet a colonel he thought was going to defect to his revolution. The meeting was a trap, and this leader was killed as soon as he showed up. Name this man often associated with the phrase 'Tierra y libertad', which means 'Land and liberty'. He is still considered a hero in Southern Mexico.

ANSWER: (Emiliano) Zapata (do not accept Zapatista)

### 16. Biology

What can be defined as tissue composed of scattered cells surrounded by tough, flexible intercellular protein fibers? It is found in large amounts in Chondrichthyes and embryos. In adult humans, it can be found in the larynx, ear, and ends of bones.

ANSWER: Cartilage

# 17. Religion/Mythology

Which book in the Bible asks, "If God is for us, who can be against us?" It ends with several personal greetings, and mentions at the beginning and end a desire on the part of the author to visit the place being addressed. It is the longest letter in the Bible, and it is usually the first epistle in the New Testament.

ANSWER: (The Book of) Romans

18. Algebra (30 Seconds)

Find the y-intercept for the graph of  $y=x^3-9x^2+23x-15$ 

ANSWER: -15 (accept (0,-15))

## 19. Current Events

She has a doctorate in physics and has done advanced work in quantum chemistry. In 1994, she was made Minister for the Environment and Reactor Safety. She is the head of the Christian Democratic Union, which is unusual for a Protestant who grew up in East Germany. Who is becoming the first woman to lead Germany in the last thousand years?

ANSWER: (Angela Dorothea) Merkel

### 20. British Literature

Who was best known for his prose but also wrote poetry such as "Advice to the Grub Street Verse-Writers" and "To Quilca, A Country House not in Good Repair". His most famous works of prose fiction were A Tale of a Tub and Travels into Several Remote Nations of the World in Four Parts by Lemuel Gulliver, which is usually referred to as Gulliver's Travels.

ANSWER: (Jonathan) Swift

TIEBREAKER: To break a tie, use the following questions in order. The first correct answer wins the match.

They are made of silver, gold, or iron, and they foretell merriment or happiness, or they bring terror or solemn thought. They jingle, tinkle, rhyme, chime, clamor, clangor, moan, or groan. Name these objects

described in a four-stanza poem by Edgar Allan Poe.

ANSWER: (The) Bells

Who wrote *The Structure and Distribution of Coral Reefs, The Movement and Habits of Climbing Plants*, and *The Variations of Animals and Plants under Domestication*? While on a long journey, he discovered many fossils that were similar to living species. After studying these for a few years, he developed ideas that he shared with friends but did not put into writing for twenty years. Name this man whose journey in the 1830s led to the book *The Origin of Species by Means of Natural Selection: Or, the Preservation of Favored Races in the Struggle for Life.* He is credited for the Theory of Evolution.

ANSWER: (Charles) Darwin

Which chemical element has atomic mass 12.01, atomic number 6, and atomic symbol C?

ANSWER: Carbon (Prompt C)