

Tossups

1. Olive Gilbert helped this woman write her biography. Earlier, she joined Elijah Pierson in evangelical preaching on street-corners. Originally named Isabel Baumfree, she was one of the last slaves in New York, escaping in 1826. Despite being illiterate and speaking only Dutch before her freedom, she was a powerful speaker, as seen in a famous speech she gave in Ohio in 1851. FTP, name this woman who delivered the "Ain't I A Woman?" speech.

Answer: Sojourner **Truth**

2. Admiral Rickover was a great influence on this man during his time in the Navy, and his early political career saw him serve as Governor after defeating Republican Hal Suit. Domestically, this President deregulated the airline industry and created a national energy policy. In foreign affairs, he saw the negotiation of the SALT II Treaty and the Camp David Accords, but the Iranian hostage crisis was not resolved until the day he left office in 1981. FTP, name this 39th President and Nobel Peace Prize winner, originally a peanut farmer from Georgia.

Answer: Jimmy **Carter**

3. This author's rise to fame began with "MS. Found in a Bottle," then continued with his only novel *The Narrative of Arthur Gordon Pym*. He wrote the poem "The City in the Sea" and the stories "The Black Cat" and "Berenice," and he pioneered detective fiction with his tales of C. Auguste Dupin. The writer of less introspective works like "The Gold-Bug," FTP, name this author who died in Baltimore and is better known as a great writer of the macabre for works like "The Cask of Amontillado," "The Pit and the Pendulum," and "The Telltale Heart."

Answer: Edgar Allan **Poe**

4. It is technically a pseudovector, but if a fixed axis is assumed it can be considered as a scalar. As a conserved property, it remains constant when other properties like moment of inertia are changed, and Kepler's Second Law can be considered a statement of that conservation. Its value for an object will remain constant in isolation, explaining the perpetual rotation of celestial objects. FTP, identify this property of rotating objects, symbolized by upper case L, the angular analogue of the product of mass and linear velocity.

Answer: **angular momentum**

5. His National Pact government repudiated the Treaty of Sèvres. He then won the battles of İnönü and Sakarya to force its replacement with the Treaty of Lausanne. After driving Sultan Mehmet VI into exile, he Westernized his nation's legal codes, culture, and alphabet, outlawing the wearing of the fez and giving the entire nation new surnames, including one for himself meaning "Father of" his nation. FTP, name this man who moved his nation's capital from Istanbul to Ankara.

Answer: Mustafa Kemal **Atatürk**

6. A doctor to Charles I and James II, his medical practice collapsed when he produced a small book introducing concepts such as systoli and diastoli. That book explained for the first time in history the working of the heart, but even more importantly it introduced a radical concept whose full acceptance had to wait decades for the discovery by Malpighi of the capillaries. FTP, name this English doctor whose observations of the valves of the arteries led to his discovery of the circulation of blood.

Answer: William **Harvey**

7. In Part 1 of this work, a gang of youth rapes Mr. Alexander's wife, who subsequently dies. The protagonist, who is a fan of Beethoven's 9th symphony, rules over Dim, Georgie, and Pete with an iron fist, but is later betrayed to the police by them. That protagonist, Alex, is then subjected to the controversial Ludovico psychological conditioning technique, which causes immense pain when he thinks about violence or sex. FTP, name this 1962 novel about youth "ultraviolence" by Anthony Burgess.

Answer: A **Clockwork Orange**

8. The Four Affirmations at the core of this religion include festivals called matsuri. Its myths were first recorded in the *Kojiki* and *Nihongi*, including stories of conquest retelling the spread of Yamato power as well as a creation myth involving Izanagi and his spouse Izanami. This religion's holiest shrine at Ise commemorates their daughter Amaterasu, the sun goddess, from whom a line of Emperors claimed descent until after World War II. Every natural object has a spirit, or kami, in, FTP, this native religion of Japan.

Answer: **Shintoism**

9. This state's Western Slope and Eastern Plains regions flank the Front Range Urban Corridor, where most of its population resides in a north-south line along Interstate 25. Its Mesa Verde National Park features Pueblo Indian ruins, and its Mount Elbert is the United States mainland's second tallest. This state gives rise to several large rivers, including the Platte, Arkansas, and Rio Grande, while large cities include Pueblo, Fort Collins, and the suburb cities of Aurora and Boulder. FTP, identify this state containing Pikes Peak and Denver.

Answer: **Colorado**

10. This author's greatest commercial success was the novel *Chance*. His adventures from the Caribbean to Southeast Asia, often among gunrunners and other interesting characters, informed many of his novels, like *The Arrow of Gold*. Impressively, he gained fame in English language writing despite never learning to speak English without an accent, having been born and raised in Poland. Known for the narrator in many of his novels, Marlow, FTP, name this author of *Nostromo* and *Lord Jim*.

Answer: Joseph **Conrad** or Józef Teodor Konrad **Korzeniowski**

11. Before the introduction of tetraethyl lead, it was the most common antiknock additive in gasoline. X-ray diffraction revealed that all of its carbon-carbon bonds were 140 picometers in length, necessitating the theory of delocalization. Even more important in chemical theory was Friedrich Kekulé's proposal for its structure based on the image of a snake with its own tail in its mouth. FTP, identify this compound that Kekulé described as a ring with alternating single and double bonds, the prototypical aromatic molecule with formula C₆H₆.

Answer: **Benzene**

12. In the attacker's plans, it was called Operation Citadel. Model would attack from the north and Hoth [hote] from the south, attempting to pinch off a salient centered on the namesake city. On the southern front, an engagement at Prokhorovka included a few Tigers and T-34's. After the battle, Operation Kutusov broke through the German southern front, leading to the reconquest of Kiev. FTP, identify this massive 1943 battle, the largest tank battle in history and the last German attempted counterattack of World War II.

Answer: Battle of **Kursk**

13. This label derives from linguistic studies and is a common word for “people” among members of its eponymous language family. This word also refers to the ethnic groups that speak these languages, from the Kikuyu to the Shona. Over the course of the last millennium, they brought cattle to southern Africa and drove the Khoisan peoples into the Kalahari Desert. This family contains most of South Africa’s ethnic groups, including the Xhosa and Zulu. FTP, identify this term for most of the people of sub-Saharan Africa.

Answer: **Bantu**

14. The continent of Pangaea began to break up into Laurasia and Gondwana during this period, which also saw the evolution of the first birds. The climate became warmer and more humid, and conifers were especially prevalent. Large reptiles such as ichthyosaurs ruled the seas, and dinosaurs were at the peak of their dominance on land. FTP, identify this geological period of the Mesozoic Era, extending from roughly 200-145 million years ago and book ended by the Triassic and Cretaceous.

Answer: **Jurassic** Period

15. All of this work’s characters are referred to by title, not name, and it lacks a coherent plot line. The protagonist’s death is elegantly depicted simply by a blank, wordless chapter. The last few chapters abruptly switch focus to Kaoru and Niou, who are relatives of the main character. A son of the Emperor but a commoner, he partakes in many romances and much political maneuvering over the course of his life. FTP, name this work by a lady of the Japanese imperial court, Murasaki Shikibu, sometimes considered the first novel in history.

Answer: The **Tale of Genji**, or **Genji Monogatari**

16. Pencil and paper ready, and listen closely. 15 seconds. In a high school hallway of two hundred closed lockers labeled 1 to 200, a bored custodian decides to open or close each locker a number of times equal to their number of integer factors, and as a result leaves some locker doors open after he’s finished. The number of opened doors can be determined by understanding that the only way for a door to be left open is for it to have an odd number of integer factors – any door with an even number of integer factors is opened and closed an equal number of times. Also understanding that the only numbers with an odd number of integer factors are perfect squares, FTP, how many of the two hundred lockers are left open after the janitor has finished walking through the hallway?

Answer: **14** lockers (the largest perfect square under 200 is 196)

17. Some of his choral works include the opera *The Songstress*, as well as twelve masses, including ones “in Troubled Times” and “in Time of War.” Much of his best work came during employment by the Esterházy family, and some of his most popular works were written in London and given nicknames like “The Clock” and “Drumroll.” Sometimes called the “Father of the String Quartet,” he is also known for the oratorios *The Creation* and *The Seasons*. FTP, name this Austrian composer of 104 symphonies, including the “Farewell” and “Surprise.”

Answer: Franz Joseph **Haydn**

18. When the Temple in Jerusalem was still standing, pilgrimage to it was required during this observance, and the Paschal Lamb was served in its honor. Beginning on the fifteenth day of the month of Nisan, it continues for seven or eight days during which no unleavened bread can be eaten, the first of which features a ritualized dinner called the Seder. FTP, name this Jewish holiday celebrating their freedom from the Pharaoh and the sparing of their firstborn children.

Answer: **Passover** or **Pesach**

19. Tertullian and Cyprian lived in this city after it was rebuilt. Belisarius retook it from the Vandals in AD 533 after winning the nearby battle of Decimum. Its citadel, the Byrsa, was taken in 146 BC, after which the first city of this name was destroyed. Its Phoenician heritage as an early outpost of Tyre in the Western Mediterranean can be seen in its foundational myth, centered around a queen who killed herself after her lover left. FTP, name this city of northern Africa, home of brothers Hasdrubal and Hannibal, against whom the Romans fought the Punic Wars.

Answer: Carthage or Kart-hadasht

20. Works like *The Beach at Sainte-Adresse* show this artist's progression from simple realistic outdoor paintings like those depicting his gardens at Giverny. Some of his best late work concerned the differing appearance of objects at different times of day, such as *Haystacks* and multiple views of the Saint-Lazare train station and Rouen Cathedral. FTP, name the French artist of the *Water Lilies*, known as a pioneer of an art movement named after one of his most famous works, *Impression, Sunrise*.

Answer: Claude Monet

21. This franchise has been haunted by playoff chokes such as in 1985, when the team's only 11-win season ended in first-round defeat, or 1986, when Mark Gastineau's penalty allowed the Browns to tie a game they would go on to win. Hall of Famers Weeb Ewbank and Don Maynard recall the team's glory years in the old AFL, and they are currently led by coach Eric Mangini and quarterback Chad Pennington. FTP, name this New York NFL team whose only real success came in 1968, winning Super Bowl III with Joe Namath.

Answer: New York Jets (prompt on "New York")

Bonuses

1. Answer these questions about an 18th-century Irishman, FTPE.

a. This man's early works include the essay collection *The Citizen of the World*. Probably his two best-known poems during his life were *The Traveller* and *Deserted Village*.

Answer: Oliver **Goldsmith**

b. Goldsmith's best-known novel is this tale of Dr. Primrose and his family. Their idyllic country life is shattered by the evil Squire Thornhill, but Mr. Burchell saves the day and his true identity is revealed.

Answer: The **Vicar of Wakefield**

c. His best remembered play, it was originally titled *Mistakes of a Night*. It follows Charles Marlow and the Lumpkin family through a comedy of errors, including Kate's decision to act like a server woman in order to meet Charles, but in the end Marlow and Kate marry happily.

Answer: **She Stoops to Conquer**

2. Pencil and paper ready, 15 seconds per part. You have one 2 ohm resistor, one 3 ohm resistor, and one 6 ohm resistor. FTPE:

a. What is the total resistance if the resistors are connected in series?

Answer: **11** ohms

b. What is the resistance if the resistors are connected in parallel?

Answer: **1** ohm

c. If the current running through the resistors in series is 2 amps, what is the total voltage drop across the resistors? Assume that Ohm's law holds.

Answer: **22** Volts

3. FTPE, answer the following about a Spanish artist.

Saturn Devouring His Son is a work found in his collection known as the Black Paintings. He may be better known for *The Third of May, 1808*.

Answer: Francisco **Goya**

Many of Goya's works can be found in this Spanish museum, also home to the Diego Velazquez painting *Las Meninas*.

Answer: El Museo **Prado**

Goya painted many portraits for this Spanish king, including a notable work of his family, who ruled from 1788-1808.

Answer: **Charles IV** [or **Carlos IV**]

4. Answer these questions about African Christianity FTPE.

a. This Christian heresy, which held that Christ had only a single nature, was condemned at the 451 Council of Chalcedon.

Answer: **monophysitism**

b. This Egyptian church, a descendent of the Monophysite heresy rejected at the Council of Chalcedon, agrees with mainstream Eastern Orthodoxy on most other matters, but conducts its services in Arabic.

Answer: **Coptic** Orthodox Church

c. The Orthodox Church of this East African nation, which is Monophysite and writes its liturgy in Ge'ez, dates to the fourth century AD. Since the murder of Emperor Haile Selassie, the church has lost its official status in this country.

Answer: **Ethiopia**

5. Given an American river, identify the state within the borders of which it flows into the sea FTPE.

a. Susquehanna River

Answer: Maryland

b. Brazos River.

Answer: Texas

c. Charles River

Answer: Massachusetts

6. Name the enzyme related to DNA replication given clues, FTPE.

a. This class of enzymes requires a magnesium ion co-factor to function. They catalyze the polymerization of a complementary strand, but cannot function without an initial RNA primer laid down by primase.

Answer: DNA Polymerases

b. This reverse transcriptase elongates its namesake region at the end of a eukaryotic chromosome: the loss of its function has been proposed as an important component of aging.

Answer: Telomerase

c. This class of proteins can seal double-strand breaks. In addition to connecting Okazaki fragments in lagging strand DNA replication, they are also important in DNA repair.

Answer: DNA Ligases

7. FTPE, identify these things related to a particular political party in the presidential election of 1968.

a. This pro-segregationist governor of Alabama got around 13% of the vote and 46 electoral votes.

Answer: George Corley Wallace

b. Wallace ran on the party's ticket.

Answer: American Independent Party

c. This running mate of Wallace had earlier developed strategic bombing techniques and led the Berlin Airlift.

Answer: Curtis Emerson LeMay

8. Answer these questions about an African-American author and poet, FTPE.

a. A collection of her poetry, *Just Give Me a Cool Drink of Water 'Fore I Die*, was nominated for the Pulitzer. She worked in Ghana, was friends with Malcolm X, and did not celebrate her birthday for years after Martin Luther King was assassinated on that day.

Answer: Maya Angelou

b. This book, her first autobiography, tells Maya Angelou's story, filled with graphic depictions of racism and sexual abuse.

Answer: I Know Why the Caged Bird Sings

c. Angelou became the first poet since Robert Frost to read a poem at a Presidential inauguration when she read "On The Pulse of Morning" at this President's inauguration.

Answer: Bill Clinton

9. FTPE, given a description of the walk-off hit that won a World Series, identify the team which won due to that hit.

a. In the bottom of the ninth inning of Game 7 in 2001, the Yankees' Mariano Rivera committed a throwing error. Later in the inning, Luis Gonzalez capitalized with a one-out walkoff bloop single over the head of Derek Jeter to win this team their first championship.

Answer: Arizona Diamondbacks (accept either)

b. "Touch 'em all, Joe – you'll never hit a bigger home run in your life!" was the call as Joe Carter beat the Phillies and won this team a second consecutive championship with a Game 6 two-run walkoff home run in 1993.

Answer: Toronto Blue Jays (accept either)

c. Joe Carter's walkoff home run was only the second such hit to win a World Series. In 1960, Bill Mazeroski hit a Game 7 walkoff home run to beat the Yankees and win this team its first World Series in decades.

Answer: Pittsburgh Pirates (accept either)

10. Identify these types of music that were composed during the Renaissance FTPE.

a. Renaissance composers most frequently set the Kyrie, Gloria, Credo, Sanctus, and Agnus Dei as a whole, to which this name is usually applied. Palestrina wrote one dedicated to Pope Marcellus.

Answer: Mass

b. These are short usually secular works that are set to a one stanza poem with each part sung by one singer. They share their name with an earlier form of composition.

Answer: Madrigal

c. This originally referred to a work with multiple Latin texts sung simultaneously, but came eventually to refer to any piece of sacred music with Latin words that was not part of the mass.

Answer: Motet

11. FTPE, given a description of ways to define acids, give the name of the definition.

A. When dissolved in water acids form hydronium positively charge ions; when bases are dissolved in water, they form hydroxide ions.

Answer: Arrhenius definition

B. Acids are proton donors, whereas bases are proton acceptors.

Answer: Bronsted-Lowry definition

C. Acids are electron pair acceptors and bases are electron pair donors.

Answer: Lewis definition

12. FTPE, answer the following about a mythological group.

This woman warrior tribe was once visited by Heracles, who sought its queen's girdle.

Answer: Amazons

This Amazon queen and daughter of Ares possessed the magical girdle Heracles sought.

Answer: Hippolyta (also accept Hippolyte)

Members of the Amazon tribe cut off this body part to enhance their archery skills.

Answer: right breast

13. Answer these questions about non-Shakespearean English drama of the 16th and 17th centuries.

a. This John Ford tragedy was notorious for its depiction of brother-sister incest and for its title, which was often changed on the rare occasions it was produced.

Answer: **'Tis Pity She's a Whore**

b. Some conspiracy theorists claim this man wrote Shakespeare's works. Under his name are plays such as *Tamburlaine* and *The Jew of Malta* and the poem *The Passionate Shepherd to His Love*.

Answer: Christopher **Marlowe**

c. Poet Laureate of England after Shakespeare's death, he rivaled Shakespeare in popularity in the early 1600's. His plays include *Every Man in His Humor*, *The Alchemist*, and *Volpone*.

Answer: Ben **Jonson**

14. FTPE, answer these questions about the military and literary achievements of Julius Caesar.

a. Caesar's greatest written work, it tells the story of his conquest of a northern land.

Answer: **Commentarii de Bello Gallico** or Commentaries on the **Gallic Wars** (also accept About, Of, or On **The Gallic War**)

b. His most important victory, it saw his army besiege Vercingetorix' force and defeat them at a hill fort, breaking Gallic resistance.

Answer: Battle or Siege of **Alesia**

c. Caesar also wrote a book about the Civil War, his victorious fight against this man, who with Caesar and Crassus formed the First Triumvirate.

Answer: **Pompey** or Cnaeus **Pompeius** Magnus

15. Answer these questions about French authors who shocked the bourgeoisie FTPE.

a. This author and his publisher were charged with immorality by the government, but acquitted, because of his *Madame Bovary*.

Answer: Gustave **Flaubert**

b. The government charged and prosecuted this translator of Poe's works for creating an offense against public morals for his work *Fleurs du Mal* or *Flowers of Evil*.

Answer: Charles **Baudelaire**

c. Name either of the pair of decadent lovers who scandalized French society in the 1870's. Their works include *Romances sans paroles* by one, and *A Season in Hell*, as well as *The Drunken Boat* for the other.

Answer: Paul **Verlaine** or Arthur **Rimbaud** (works go in that order, but doesn't matter)

16. Identify some battles from British history FTPE.

a. This battle from the War of the Roses saw Richard III die and the start of the Tudor Dynasty.

Answer: Battle of **Bosworth Field**

b. This battle took place in Scotland and was fought between the Duke of Cumberland and Prince Charles Stuart. It ended the Jacobite uprising.

Answer: Battle of **Culloden** Moor

c. William III defeated James II in 1690 at this battle named for an Irish river.

Answer: Battle of the **Boyne**

17. FTPE, answer these questions about an astronomer and his eponymous law.

a. Name the scientist whose eponymous law states that the redshift of other objects in the universe is proportional to their distance from us, implying an expanding universe.

Answer: Edwin **Hubble**

b. The law was so strong an argument against the static universe theory that Albert Einstein abandoned his work on this concept, a factor introduced into general relativity to cancel out forces leading to an expanding universe. In recent years it has been revived to explain cosmic acceleration.

Answer: **Cosmological constant**

c. Hubble is also known for his Hubble Sequence, a classification scheme for these objects, dividing them into ellipticals, lenticulars, and spirals. It is often drawn using a "tuning-fork" diagram.

Answer: **galaxies** or **galaxy**

18. Answer the following about twentieth century Japanese authors from works and other clues FTPE.

a. A Nobel laureate, he wrote *The Pinch Runner Memorandum*, *Nip the Buds, Shoot the Kids*, and more reflective works like *A Personal Matter* and *The Silent Cry*.

Answer: Kensaburo **Oe** or **Oe** Kensaburo

b. This author's surreal writings include *Hardboiled Wonderland and the End of the World*, *The Wind-Up Bird Chronicle*, and *Norwegian Wood*.

Answer: Haruki **Murakami** or **Murakami** Haruki

c. Murakami is also known for a work depicting this author "on the Shore." This author is himself most famous for the story of Gregor Samsa becoming a giant bug, "The Metamorphosis."

Answer: Franz **Kafka**

19. Answer these questions about an important philosopher of the 18th century, FTPE.

a. Name this man, whose chief work is the *Enquiry Concerning Human Understanding*.

Answer: David **Hume**

b. Hume was one of many thinkers from this country, whose Enlightenment figures included Robert Burns, Francis Hutcheson, and James Watt.

Answer: **Scotland**

c. Hume framed the "problem of" this concept, arguing that the future does not logically have to resemble the past. This process of reasoning proceeds from specific information to find a general principle and was the centerpiece of Francis Bacon's scientific method. It is the complement to a similarly named process of reasoning in which general principles are used to derive specific information.

Answer: **Induction**

20. Answer these questions about British rule over India, FTPE.

a. The British takeover began when this former East India Company clerk won the 1757 Battle of Plassey and took over Bengal.

Answer: Robert **Clive**

b. The British East India Company ruled the subcontinent until this uprising in 1857. Battles and massacres at Lucknow, Delhi, Kanpur, and Jhansi ended in British victory, and the Crown took ownership of India.

Answer: **First War of Indian Independence** or **Indian Mutiny** or **Sepoy Mutiny**

c. British rule as a whole ended in 1947, but religious strife necessitated this event, the creation of two nations from unified colonial India. Up to a million people died in the chaos afterward.

Answer: **Partition**