

1. Sections of this poem include The Spinning Wheel, The Wedding Day, and The Lover's Errand. The title character, believed dead, appears at his friend's wedding to ask forgiveness. Months earlier, he had sent his friend on an errand, which ended with Priscilla's question, "Why don't you speak for yourself, John?" FTP, name this 1859 poem about a Pilgrim love triangle, written by Henry Wadsworth Longfellow.

Answer: The **Courtship of Miles Standish**

2. Its developer used this idea to show the limits of a gamma ray microscope in a thought experiment. According to this principle, the zero-point energy of a particle in a box equals $\hbar^2 / 8mL^2$, and it can be used to find the lifetime of a virtual particle. In its simplest form, it says that $\Delta x \times \Delta p$ is greater than or equal to $\hbar/2$. FTP, name this central principle in quantum mechanics.

Answer: the Heisenberg **uncertainty** principle

3. Their rule ended soon after the 1908 assassination of the king and crown prince. Much earlier, one member of this line was the queen of Charles II of England. Their first king, John IV, secured independence from their larger neighbor at Montijo in 1644, and in 1654 he forced the Dutch out of Brazil. FTP, name this house which ruled Brazil for most of the 19th century, and which ruled Portugal for 270 years.

Answer: the House of **Braganza**

4. The title characters see a slide of a Greek statue with an enigmatic smile. They would see the same smile on Catherine, who outraces them on a bridge by cheating, and who once jumps into the Seine. One title character is German, the other French; one is short, the other tall. FTP, name this French New Wave film about a love triangle, directed by Francois Truffaut.

Answer: **Jules and Jim** or **Jules et Jim**

5. Every morning he lovingly gazes at an x-ray of a woman's skeletal structure, which he got from Dr. Behrens. He is fascinated by debates between Naphta and Settembrini, and he confesses his love to Clavdia in French. Though he first came to visit his cousin Joachim, he remains at Davos for seven years. FTP, name this young German patient of Thomas Mann's *Magic Mountain*.

Answer: **Hans Castorp** (accept either name)

6. First adapted from the Rossi-Forel, versions of this scale by Cancani and Sieberg are still used in Southern Europe. Its common form is a 1931 version adapted by Wood and Neumann to use in California. A value of 3 resembles the passing of a truck, while large cracks in the ground represent a 9, and large rock masses are thrown up in a 12. FTP, name this scale of earthquake intensity based on damage produced.

Answer: **Mercalli** scale or **Modified Mercalli** scale (accept **MM56**)

7. His 1988 solo album, featuring the songs "Love & Mercy" and "Rio Grande," was overshadowed by controversy about his treatment by Dr. Eugene Landy. His life changed when he heard the backing vocals of "Be My Baby," which influenced his songs "Sloop John B.," "Don't Worry, Baby," and "In My Room," among others. FTP, name this reclusive mastermind behind the *Pet Sounds* album, a founding member of the Beach Boys.

Answer: Brian **Wilson**

8. Formed in 1935 with Homer Martin as president, 16 of its members were injured in the "Battle of the Running Bulls." It gained recognition from GM through a 44-day sit-down strike in Flint in 1937, led by the Reuther brothers. It rejoined the AFL-CIO in 1981, and today it includes aerospace and farm machinery workers. FTP, name this union once headed by Walter Reuther, founded by workers in the vehicular industry.

Answer: **UAW** or **United Auto(mobile) Workers** (or **United Automobile, Aerospace, and Agricultural Implement Workers of America**)

9. Examples of these cited by James Frazer include the bat and owl in southeast Australia, the elk to the Omaha, and the raven, wolf, eagle, and bear to the Niska Indians. Coined by Long in 1791, it is an animal or object which the members of a group respect and hold themselves to be peculiarly related to, and which serves as a social bond of union. FTP, give this 5-letter term, often associated with tall carvings produced by Indians of the Northwest.

Answer: **totem**

10. An offspring of Typhon and Echidna, he was described by Hesiod as "bronze-voiced" with 50 heads, but he has far fewer in most myths. His back is covered with snake's heads and he has a dragon tail, but he could not bite through the skin of the Nemean Lion. FTP, name this three-headed dog, the guardian to the underworld in Greek mythology.

Answer: **Cerberus**

11. Synthesized by Louis Fieser in 1942, it remains stable between -40 and 150 degrees, and it can be ignited by using TNT to set off white phosphorous or thermite. The B type uses polystyrene and benzene in place of its namesake compounds, and its jellylike consistency makes it a more stable incendiary than plain gasoline. FTP, name this compound, first made by adding aluminum palmitate and naphthene to gasoline.

Answer: **napalm** (accept early **naphthenate palmitate** or similar-sounding variants)

12. As a Quaker in the 1940s, he wrote *The Flavor of Man* and several articles for the *Friends Intelligencer*. His novels *Caromb* and *Transatlantic* reflect the influence of Gurdjieff, and Langston Hughes referred to him as "Gurdjieff in Harlem." His most famous book focuses on Southern women and Northern blacks inhibited by social attitudes. FTP, name this writer, best known for the 1923 book *Cane*.

Answer: Jean **Toomer**

13. He is credited with restoring the Lake of Sippar and building the Medean wall between the Tigris and Euphrates. He was defeated by the pharaoh Necho in 601 BC, three years after his victory at Carchemish. He crushed a revolt begun by Jehoiakim and placed the puppet king Zedekiah on the Judean throne. FTP, name this Babylonian king who, in 586 BC, destroyed Jerusalem.

Answer: **Nebuchadnezzar** or **Nebuchadrezzar** or **Nebuchodonosor** or other close variants

14. It opens with a powerful trumpet "Toccata," and Act IV opens with the plea of Proserpina. In the aria "Possente spirto," the protagonist sings to earn passage across a river. The 1609 version of the opera ended with the protagonist being made a demigod by Apollo, while the 1607 version ended with him being torn apart by Bacchantes. FTP, name this Monteverdi opera in which the title character tries to bring Eurydice back from the underworld.

Answer: **Orfeo** (or **Orpheus**)

15. The Titan and Maxwell ones have eccentricities of about .0003. The thinnest ones, C and A, are less than 60 meters thick, while E extends from 3 to 8 planetary radii. The mysterious spokes in B, found by Voyager, have been the source of much study. FTP, name these celestial objects which looked like "ears" to Galileo.

Answer: **rings of Saturn** or obvious equivalents

16. The sixth had an eye for the ladies as a young man, and he died a mysterious death. The fourth, Yonten, was the son of the Mongol King Altan Khan. The first, Gedun Drup, became abbot of Ganden and head of the Gelukpa in 1438. The fourteenth, Tenzin Gyatso, won a Nobel Peace Prize in 1989. FTP, name this title, meaning Ocean of Wisdom, the current holder of which fled from Tibet to India in 1959.

Answer: the **Dalai Lama**

17. In June 1998, Bishop Samuel Ruiz Garcia withdrew as mediator in this state, six months after the ruling party killed 45 suspected members of the EZLN. Its large Mayan population had long faced discrimination, and in 1994, a sudden Zapatista revolt under Subcomandante Marcos took 5 villages and 500 ranches. FTP, name this troubled state of southern Mexico, site of what the New York Times called "the world's first postmodern revolution."

Answer: **Chiapas**

18. This condition is often treated by phaco-emulsification, in which ultrasound waves soften and break up the whitish center of the target. Vitamin C may help prevent it, while diabetes, smoking, and especially age are linked to this condition. Symptoms include a halo effect, poor night vision, and blurry vision. The most common eye disorder in the U.S., FTP, name this condition in which the lens becomes cloudy.

Answer: **cataracts**

19. Hengam and Qeshm [kesh-um] are islands in it, and the village of Kumzar sits by this body of water, on the Musandam peninsula. Measuring 35-60 miles wide, it is of great strategic importance, as 1/4 of the world's oil supply passes through it. FTP, name this strait which borders Oman, the United Arab Emirates, and Iran, and which connects the Gulf of Oman and the Persian Gulf.

Answer: **Strait of Hormuz** (accept **Strait of Ormuz**)

20. All of the first 19 tossup answers were discussed or mentioned in this novel, which includes such characters as Yul Singh, Mull Standish, Virus Cama, and the band VTO. Set in Bombay, London, and New York, it is photographer Rai Merchant's tale of Vina Apsara, who dies in an earthquake on Valentine's Day in 1989, the same day its author became the subject of a fatwa. FTP, name this 1999 novel of Salman Rushdie.

Answer: **The Ground Beneath Her Feet**

21. Malletts, Missisquoi, and St. Albans Bays are connected to this large lake, which is fed by the Otter, Winooski, and Lamoille rivers. North and South Hero Island are in this 430-mile-long lake, the upper 6 miles of which are in Canada. It was the site of British-American naval battles in 1776 and 1814, the latter won by Thomas Macdonough. FTP, name this large lake on the border of Vermont and New York.

Answer: Lake **Champlain**

22. The main character meets his cousin Byrrhena, who warns him of the witch Pamphile, who turns into an owl. He is captured by robbers after his transformation, and the servant of one robber tells the famous story of Cupid and Psyche in Books 4-6. In the end, Lucius is restored to human form with help from Isis. FTP, name this novel of the 2nd century AD, written by Apuleius.

Answer: **The Golden Ass** or **Metamorphoses**

23. He chaired a Senate committee to select the "Famous Five" senators in the late 1950s. He became a member of the Senate Committee on Foreign Relations in 1957, where he supported labor reforms and third-world economic aid. He won easy re-election over Vincent Celeste in 1958, after edging out Henry Cabot Lodge in 1952. FTP, name this man who, during an illness, also wrote *Profiles in Courage*.

Answer: **John Fitzgerald Kennedy**

24. He was granted amnesty by Mao Zedong in 1959 after nine years in Shenyang prison. Prior to his capture by the Russians, he ruled under the name K'ang Te as emperor of Manchukuo. Earlier, he had been allowed to live in the Forbidden City until 1924, despite his abdication in 1912. FTP, name this last emperor of China.

Answer: **Pu-yi** (accept **Hsuan T'ung** or early "K'ang Te," and prompt on "Last Emperor")

25. He used the ant and spider as symbols for understanding nature, and he distinguished between Anticipations and Interpretations of Nature, the latter being a proper foundation for science. His tables of presence, absence, and degrees, in a famous work on scientific method, follow his discussions of the Four Idols. FTP, name this author of *The Advancement of Learning* and *Novum Organum*.

Answer: Francis **Bacon**

1. FTPE name these 19th and 20th century figures in psychology.

A. A cousin of Charles Darwin, he was the first to study the nature/nurture question, use word-association and intelligence testing, conduct twin studies, and make use of a questionnaire for psychological testing.

Answer: Sir Francis **Galton**

B. An attorney by education, he became director of the experimental psychology lab at the Sorbonne. To help the French government identify retarded students in need of alternative education, he developed with Theodore Simon [sea-MON] an intelligence scale later modified for American use by Stanford professors Lewis Terman and H. G. Childs.

Answer: Alfred **Binet**

C. This former locksmith wrote books on everything from incest to Lohengrin and still found time for an affair with Anais Nin. Once Freud's closest disciple, he broke with his mentor over his seminal 1924 work *The Trauma of Birth*.

Answer: Otto **Rank**

2. FTP each, answers these questions about the 12 labors of Hercules.

A. When Hera sent Hercules into a fit of madness, during which he killed his wife Megara, the oracle at Delphi told Hercules that he had to serve this king of Tiryns for 12 years to purify himself of the murders.

Answer: King **Eurystheus**

B. They were the nymph daughters of Atlas, and lived at the western end of the world. There, they guarded the golden apples that Gaea had given to the goddess Hera.

Answer: The **Hesperides**

C. The ninth Labor took Hercules to the land of the Amazons to retrieve the belt of this queen for Eurystheus' daughter, who willingly gave Hercules her belt.

Answer: **Hippolyta**

3. Name these types of glial cells, FTP each:

A. These cells wrap around axons to create myelin sheaths in the peripheral nervous system.

Answer: **Schwann** cells

B. These star-shaped cells provide structure to brain tissues and help prevent anoxia.

Answer: **astrocytes**

C. Not to be confused with Schwann cells, these provide myelin sheaths in the axons of the central nervous system.

Answer: **oligodendrocytes** or **oligodendroglia**

4. Name the New Deal acts, FTP each.

A. This 1935 act created board to preside over labor-management relations and enable unions to engage in collective bargaining with federal support.

Answer: the **Wagner-Connery Act** or **National Labor Relations Act**

B. Under this act, passed in 1933, the government allocated acreage to individual farmers; the act was ruled unconstitutional three years later.

Answer: **AAA** or **Agricultural Adjustment Act**

C. Passed on March 22, 1933, it generated revenue by applying luxury taxes to the namesake potables.

Answer: **Beer-Wine Revenue Act**

5. Identify these works of Henry David Thoreau, none of which involves living by a pond, FTP each.

A. This well-known 1849 essay opens with Thoreau accepting the motto, "That government is best which governs least."

Answer: **Resistance to Civil Government** or **Civil Disobedience**

B. Delivered on July 4th, 1854, at Framingham, this abolitionist essay gained its current title when reprinted in the *Liberator*.

Answer: **Slavery in Massachusetts**

C. Based on a 7-day canoe trip, Thoreau had to buy back over 700 of the 1000 copies of this 1849 book, his first.

Answer: **A Week on the Concord and Merrimack Rivers**

6. 30-20-10. Name the actress.

A. Born Lucille LeSueur in San Antonio, Texas, she emerged from the silent film era in the movie *Untamed*.

B. She starred with Greta Garbo, Wallace Beery, and John and Lionel Barrymore in the 1932 blockbuster *Grand Hotel*, and with Bette Davis in *Whatever Happened to Baby Jane?* Her husbands included Douglas Fairbanks, Jr., and Pepsi-Cola executive Alfred Steele.

C. In 1945 she won an Oscar for her performance in *Mildred Pierce*, but is best remembered as the evil mother depicted in *Mommie Dearest*.

Answer: Joan **Crawford**

7. Name these characters from *Jane Eyre*, FTP each.

A. Jane becomes the governess in this man's house, Thornfield.

Answer: Edward Fairfax **Rochester**

B. This pale and small-featured French opera singer is Rochester's illegitimate daughter.

Answer: **Adele Varens** (accept either name)

C. He asks Jane to marry him so they can devote their lives to missionary work in India, but she returns to Rochester.

Answer: **St. John** Rivers

8. FTP each, name these island groups.

A. Located 200 miles northwest of the Shetlands, its inhabitants speak a language derived from Old Norse, and its capital is at Torshavn.

Answer: **Faeroe** Islands

B. This group of 15 islands has its capital, Avarua, on the island of Rarotonga. Named for an explorer, they became part of New Zealand in 1901.

Answer: **Cook** Islands

C. Pliny mentions an expedition to these islands in circa 40 B.C., and they may have been the Fortunate Islands of later classical writers. 800 miles southwest of Spain, their capital is Tenerife.

Answer: **Canary** Islands

9. In June 2001 several members of the monarchy in an Asian country were murdered by a member of the immediate royal family. FTSNOP:

A. F5P, name this Himalayan kingdom.

Answer: **Nepal**

B. FTP, name the crown prince who did the shooting.

Answer: **Dipendra**

C. The king, queen, and royal daughter were all killed in the attack. For 5 points for one and 15 for two, name any two of these three people.

Answer: King **Birendra**, Queen **Aishwarya**, Princess **Sruti**

10. Show that your biology knowledge is on, and give the terms for the following FTP each.

A. A non-protein-coding region of a eukaryotic gene and also of the RNA transcribed from such a region; it doesn't appear in mature mRNA.

Answer: **intron**

B. Unlike the intron, a protein-coding region of a eukaryotic gene, or the RNA transcribed from such a region.

Answer: **exon**

C. Controlled by a single repressor, a group of structural genes in a prokaryote which are transcribed as a single message plus their associated regulatory elements.

Answer: **operon**

11. FTP each, name these Valois kings of France.

A. King from 1515-47, he was a well-known patron of the arts and rival of Holy Roman Emperor Charles V.

Answer: **Francois I** or **Francis I**

B. The first Valois king, his reign saw the outbreak of the Hundred Years' War.

Answer: **Philip VI** or **Philip of Valois**

C. Largely controlled by his mother, this son of Henry II authorized the St. Bartholomew's Day Massacre.

Answer: **Charles IX**

12. *The Producers* dominated the most recent Tony Awards.

A. FFP for one and 15 for both, name the two producers portrayed by Matthew Broderick and Nathan Lane.

Answer: Leo **Bloom** and Max **Bialystock**

B. FFP for one and 15 for both, name the two actors who played Bloom and Bialystock in the 1968 film version.

Answer: Gene **Wilder** and Zero **Mostel**

13. Give these terms from coordination chemistry, FTSNOP.

A. FTP, an anion or molecule that functions as a Lewis base in forming one or more coordinate covalent bonds to metal ions.

Answer: **ligand**

B. F5P, a coordination complex which contains one or more ligands.

Answer: **chelate** (accept close variants)

C. F15P, this term describes a ligand having more than one atom which forms a coordinate covalent bond with a metal ion.

Answer: **polydentate** ligand

14. Martin Luther stuff, FTP each:

A. In 1521, Frederick the Wise of Saxony demanded that Luther not be outlawed and imprisoned without a hearing, which led Luther on a trip to this city for the Imperial Diet.

Answer: **Worms**

B. Name the city in which the Second and Third Diets were held, in which Luther was unbanished and then eventually exiled again.

Answer: **Nuremberg**

C. This priest and former follower of Luther led the Peasants' War in Thuringia, and he was beheaded as a result in 1525.

Answer: Thomas **Munzer**

15. Name these early Shakespeare plays, FTP each.

A. Ferdinand, Berowne, Longaville, and Dumain agree to avoid the company of women for 3 years, but each soon falls in love.

Answer: **Love's Labours Lost**

B. It depicts the control of the titular king by his uncles John and Humphrey, and the early years of his reign, up to his marriage to Margaret of Anjou.

Answer: **Henry VI Part I**

C. The title characters are rivals for the hand of Silvia, daughter of the Duke of Milan; one gets the girl, and the other marries Julia.

Answer: **Two Gentlemen of Verona**

16. Name these people associated with the Vienna Circle, FTP each.

A. This longtime Chicago and Berkeley professor wrote *Introduction to Semantics* and *The Logical Foundations of Probability*.

Answer: Rudolf **Carnap**

B. The author of *Modern Man in the Making*, he co-published the movement's manifesto in 1929 with Carnap and Hahn.

Answer: Otto **Neurath**

C. Not actually a member of the Circle, he is best known for his thesis that scientific hypotheses can not be proven by induction and can at best be falsified, in his 1934 book *The Logic of Scientific Discovery*.

Answer: Karl **Popper**

17. Identify these physics experiments, each named for two scientists, F15P each.

A. A beam of silver atoms was sent through a strong inhomogeneous magnetic field in this 1922 experiment; the resulting separation into two beams was early evidence of spin.

Answer: **Stern-Gerlach** experiment

B. A light beam was split into two beams which followed paths before being reunited in an interferometer; however, the expected fringes were not seen in this 1887 experiment.

Answer: **Michelson-Morley** experiment

18. Give the shared nationality of these groups of Latin American writers, FTP each.

A. Alberto Blest Gana, Jose Donoso, and Gabriela Mistral.

Answer: **Chile**

B. Hernan Robleto, Ruben Dario, and Adolfo Calero Orozco.

Answer: **Nicaragua**

C. Alcides Arguedes, Ricardo Jaimes Freyre, and Armando Chirveches.

Answer: **Bolivia**

19. Answer the following about very dead people, FTSNOP.

A. FTP, provide both the genus and species generally assigned to Java Man and Peking Man

Answer: **Homo erectus** (prompt on *Pithecanthropus* or *Sinanthropus*)

B. F5P, Lucy, discovered in 1974, is a member of this genus.

Answer: **Australopithecus** (prompt on "southern ape")

C. F15P, meaning "flat-faced man of Kenya," this is the genus and species of a dead guy discovered in 1999 by Meave Leakey's team.

Answer: **Kenyanthropus platyops**

20. Answer the following about a dynasty of South American Indians, FTSNOP:

A. FTP, name this dynasty which took over the Cuzco valley in Peru around A.D. 1200.

Answer: **Inca** or **Incan**

B. F5P, this Spanish conquistador helped end the reign of the Incan empire in the early 1530s.

Answer: Francisco **Pizarro**

C. F15P, since the Incans had no currency or formal way of writing, counting was done through the use of these colored, knotted cords.

Answer: **quipu** or **kipu**

21. 30-20-10. Name the woman.

A. Born in 1951, she holds a B.A. in architecture, and her father was a former navy test pilot who headed the FAA under President Kennedy.

B. Born Lisa Halaby, she passed on the Columbia School of Journalism to become Arabair's Service Director of Facilities Planning and Design, a job in which she met her future husband.

C. A vocal opponent of land mines, in 1978 she became the first American-born queen of an Arab country, taking a name meaning "Light of Hussein."

Answer: Queen **Noor** Al-Hussein of Jordan (accept "Lisa Halaby" on first clue)

22. Name these mannerist painters, FTSNOP:

A. F5P, he is best known for works like *View of Toledo* and *The Burial of Count Orgaz*.

Answer: El **Greco** or Domenikos **Theotokopolous**

B. FTP, influenced by Corregio, his work is noted for the elongation of the figures, like his *Portrait of a Woman*, as well as the neck of a famous Madonna he painted.

Answer: Il **Parmigianino** or Girolamo Francesco Maria **Mazzola**

C. F15P, a founder of the Fontainebleau school, he trained briefly under Andrea del Sarto. His major surviving works include a cycle of pagan subjects and the 1523 *Moses Defending the Daughters of Jethro*.

Answer: **Rosso** Fiorentino, or Giovanni Batista de Jacopo di Gasparre

23. For 10 points apiece, name these northern bodies of water.

A. A part of the Northern Sea Route, it is the outlet for the Yenisey and Ob rivers.

Answer: **Kara** Sea

B. This sea was named for the 18th century Russian cousins Khariton and Dmitri, who mapped its shores, and the Lena flows into it.

Answer: **Laptev** Sea

C. Named for a Dutch navigator, this sea is east of Svalbard, and is bounded on the north by Franz Josef Land and Spitsbergen.

Answer: **Barents** Sea

24. Name these members of the Vanir in Norse myth, FTP each:

A. Chief among the Vanir was this lord of the winds and of the sea.

Answer: **Njord**

B. Originally one of the Vanir, this son of Njord was the god of fertility, sunlight, and rain.

Answer: **Freyr** or **Frey** (do not accept "Freya")

C. This messenger of the gods tried to convince Hel to allow Balder to return from the realm of the dead.

Answer: **Hermod** or **Svipdag**

25. How well do you know your Tolkein? Given a character from the *Lord of the Rings* trilogy, identify the character's race, FTSNOP.

A. F5P, Frodo Baggins.

Answer: **Hobbit**

B. F5P, Eomer.

Answer: **Rohirrim** or **Man**

C. FTP, Fangorn

Answer: **Ent**

D. FTP, Gorbag

Answer: **Orc**

26. Answer the following about substitution reactions in chemistry, F15P each.

A. Named for a German chemist, this type of inversion takes place in a back-side attack of the chiral carbon in an S_N2 reaction.

Answer: **Walden** inversion

B. In an S_N1 reaction, this reactive intermediate is formed, in which a carbon contains a positive charge.

Answer: **carbocation** (also accept **carbonium** ion)