



1. The track of these particles represents the "spur" in the spur model. Sodium-22 is commonly used to produce these particles, whose destruction in PALS is marked by the emission of a 511keV photon. Carl Anderson discovered these particles that were predicted by Paul Dirac. Penning traps are used to bring these particles together with more massive ones to create anti-hydrogen. These particles, and their more abundant counterpart, are typically produced by pair production. Name this positively charged anti-particle that is the "opposite" of an electron.

ANSWER: **positron**

149-13-84-05101

2. In the aftermath of this event, the local coroner disagreed with Lord Widgery. This event began as a march to Guildhall Square organized by the Civil Rights Association. In 1998, a twelve-year inquiry into this event began, culminating with the 2010 Saville Report. This event happened in Londonderry on January 30, 1972, and led to a renewed wave of support for the IRA. Name this incident in which twenty-seven unarmed demonstrators were shot by British soldiers in Northern Ireland.

ANSWER: **Bloody Sunday**

019-13-84-05102

3. A modification made to this equation focusing on the concentrations of potassium, sodium, and chlorine ions is named for Goldman, Hodgkin, and Katz. This equation can be rewritten to include a log base ten multiplied by 0.0592 instead of a natural log when a system is kept at twenty-five degrees Celsius. That 0.0592 in this equation comes from multiplying the temperature by the ideal gas constant and Faraday's constant. Name this equation that uses the log of a system's reaction quotient to discover the value of E, the potential of an electrochemical cell in volts.

ANSWER: **Nernst** equation

023-13-84-05103

4. She's not Demeter, but this deity breathed perfume on the maidservants of a queen after her attempt to make that queen's son immortal was interrupted. This goddess' name means "throne" and her symbol was a tiel. After a snake poisoned him, Ra revealed his secret name to this goddess in return for an antidote. This goddess went on a search for 14 body parts, but only found 13 because one was eaten by a fish. After reviving her husband, who was killed by Set, this goddess gave birth to Horus. Name this sister and wife of Osiris, a mother god in Egyptian mythology.

ANSWER: **Isis**

149-13-84-05104

5. A kinase that acts on this compound is responsible for activating the anti-HSV drug acyclovir. 5-methyl-cytosine deaminates (dee-AM-in-ates) to form this compound. Xeroderma pigmentosum results when cells are unable to remove cyclobutane dimers of this compound created by UV light. The Azido-form of this compound is a chain terminator and early HIV drug. Name this nucleotide base that is unique to DNA and forms two hydrogen bonds with adenine.

ANSWER: DNA base **T** [or **thymidine**; or **thymine**; or **thymidylate**; do not accept "thiamine"]

048-13-84-05105

6. This city is named after a man who worked for surveyors of the Connecticut Land Company, as it once belonged to Connecticut's Western Reserve. This American city has a museum with a glass pyramid designed by I.M. Pei. This city is located at the mouth of a river which notoriously caught fire in June of 1969. It is home to the Rock and Roll Hall of Fame. Name this second-largest Ohio city, located on the mouth of the Cuyahoga River and on the shores of Lake Erie.

ANSWER: **Cleveland**

052-13-84-05106

7. This man interprets himself as the snake in one of his mother's dreams. His sister realizes he must be near when she finds a lock of hair and footprints similar to her own. At the beginning of another work, he tries to find sanctuary in Apollo's temple at Delphi to escape the title figures, who track him down by following the scent of his mother's blood. Apollo successfully defends this man in *The Eumenides*, the last part of a trilogy named for him. Name this son of Agamemnon who kills his mother Clytemnestra in *The Libation Bearers* by Aeschylus.

ANSWER: **Orestes**

121-13-84-05107

8. This creature killed residents of a city as punishment for the murder of Androgeus (an-dro-JAY-us). On his way home after killing this creature, one man forgot to change the color of his sails, leading to the death of his father. That hero slew this creature with assistance from Ariadne, who provided him with string. This beast was finally killed when Theseus entered the center of the Cretan labyrinth. Name this half-man, half-bull monster from Greek mythology.

ANSWER: **Minotaur**

052-13-84-05108

9. This man seized power in a coup largely financed by his mistress Harriet Howard. He appointed the liberal Emile Ollivier as a Prime Minister. This ruler's "Grand Scheme for the Americas" involved appointing Maximilian I to rule Mexico. He commissioned Baron Haussman to modernize the capital of his empire with building projects. This man was overthrown after losing the Battle of Sedan during the Franco-Prussian War. Name this ruler of the Second French Empire who was the nephew of the loser at Waterloo.

ANSWER: **Napoleon III** [or Charles **Louis-Napoleon** Bonaparte; prompt on **Bonaparte**; do not accept "Napoleon"]

052-13-84-05109

10. A mayor from this state named Frank Zeidler carried out an aggressive annexation plan and was the last socialist mayor of a major American city. A Senator from this state was nicknamed "Young Bob" and was defeated by a man who made an inflammatory speech to the Republican Women's Club of Wheeling, West Virginia. That other Senator from this state was asked, "Have you left no sense of decency?" by Army attorney Joseph Welch after leading a Red Scare. Name this state that was represented in the U.S. Senate by Robert La Follette and Joseph McCarthy.

ANSWER: **Wisconsin**

030-13-84-05110

11. In one scene in this novel, a commander is hindered by the Stone Sentinel Maze. Several characters in it take a pledge in the Oath of the Peach Garden. In this novel, the marriage of Lady Sun to Liu Bei is planned by Sun Quan after he wins the Battle of Red Cliffs, and the tyranny of Dong Zhou is ended by Lu Bu. Name this classic Chinese novel which details the turmoil towards the end of the Han Dynasty, including a split into multiple realms.

ANSWER: *The **Romance of the Three Kingdoms*** [or ***San Guo Yan Yi***]

192-13-84-05111

12. ?In one painting by this artist, a large red curtain hangs from the wooden ceiling above the title woman, who is barefoot and prone in a dark pink dress. This painter of *Death of the Virgin* showed three men pointing towards a character who is illuminated by a ray of light and intently counting coins in his *The Calling of St. Matthew*. A man journeying to Damascus is pinned on the ground by divine light and is near a large horse in his *The Conversion of St. Paul*. For 10 points, name this Italian Baroque painter whose drastic changes in illumination across a canvas were known as "tenebrism."

ANSWER: **Caravaggio** [or Michelangelo **Merisi**]

019-13-84-05112

13. This country's Skomer Island and Ramsey Island are located within St. Bride's Bay, which, along with Cardigan Bay, indents this country's western coast. Carmel Head is on its island of Anglesey, and the Cambrians cut through its middle. Snowdonia is a region in this country, which is north of the Bristol Channel, on which lie Swansea and Cardiff, its capital. Name this constituent country of the United Kingdom, located west of England.

ANSWER: **Wales** [or **Cymru**; prompt on **UK** or **United Kingdom** until "capital" is read; do not accept or prompt on "Britain," "England," etc.]

192-13-84-05113

14. This man first proved Albert Girard's original observation that a prime  $p$  could only be expressed as the sum of two squares if the prime was congruent to one modulo four. The Taniyama-Shimura conjecture was used by Andrew Wiles to prove one of his theorems, which states that there are no integers that satisfy  $a^n + b^n = c^n$  when  $n$  is greater than two. Another statement named for this man is  $a^p \equiv a \pmod{p}$ , where  $a$  is an integer and  $p$  is a prime number. Name this French mathematician who has "little" and "last" theorems.

ANSWER: Pierre de **Fermat**

189-13-84-05114

15. This type of stanza is used when writing a pantoum. This stanza form includes a type that became popular following its use in the poem "In Memoriam" by Lord Tennyson. A work written with a type of this stanza called a *roba'i* was created by Omar Khayyam. Thomas Gray used this form in his "Elegy Written in a Country Churchyard." Three of these stanza units occur before a concluding rhyming couplet in a Shakespearean sonnet. Name this type of poetic stanza that consists of four lines.

ANSWER: **quatrain** [or **four-line** stanzas before it is read]

023-13-84-05115

16. James Meade claimed that bees pollinating flowers was one of these situations. These will be resolved if property rights are clearly defined and transaction costs are low, according to Coase's Theorem. The efficient equilibrium is different than the market equilibrium as a result of these situations, but the market equilibrium can become efficient by assessing a Pigouvian tax. Common resources often result in positive ones, which can lead to many free riders. Examples include the overuse of antibiotics or pollution. Name these economic "spill-overs" in which a cost or benefit of a good is transferred to someone who doesn't purchase it.

ANSWER: **externalities** [or **externality**; or **spillover** before mention]

190-13-84-05116

17. The Gatteman-Koch reaction produces a compound consisting of this molecule with a formyl substituent. When nitrated, this molecule forms a substance used as a precursor to aniline. A fused pair of this molecule form a substance used in mothballs called naphthalene. A phenyl group has one less hydrogen than this molecule. August Kekule was the first to successfully deduce this molecule's alternating double bond ring structure. Name this aromatic hydrocarbon with formula C<sub>6</sub>H<sub>6</sub>.

ANSWER: **benzene**

201-13-84-05117

18. An insufficient amount of this phenomenon causes lengthening of internodes and chlorosis, which are two parts of etiolation. Using agar blocks, Fritz Went showed that auxins were responsible for triggering growth in the direction of this phenomenon. The Calvin cycle occurs independently of this phenomenon. This phenomenon is responsible for the excitation of P680 and P700 reaction centers within the thylakoid membrane of a chloroplast. Name this energy source which plants use to drive photosynthesis.

ANSWER: **light** [accept **photosynthesis** till mention]

048-13-84-05118

19. In one of this man's stories, Benjamin Driscoll rides a motorcycle across a planet planting trees. He also wrote about a robotic house that keeps running long after a nuclear attack has killed its inhabitants. That story, "There Will Come Soft Rains," was included in this man's *Martian Chronicles*. Another book by this author centers on a fireman who is tasked with memorizing the Book of Ecclesiastes, named Guy Montag. Name this science fiction author of *Fahrenheit 451*.

ANSWER: Ray **Bradbury** [or Ray Douglas **Bradbury**]

149-13-84-05119

20. This composer required the right hand to reach intervals greater than two octaves in the space of a sixteenth note in his Paganini-inspired "La Campanella." One collection of pieces by this composer includes a tenth, subtitled Preludio; a fifteenth, the Rakoczy March; and a gypsy-inspired second, which appears in many cartoons. Name this piano virtuoso and composer who used folk music from his home country as the basis for his *Hungarian Rhapsodies*.

ANSWER: Franz **Liszt** [or Ferenc **Liszt**]

023-13-84-05120



1. This leader sent Boris Sheremetyev as an envoy to the Knights of Malta. During this man's reign, Yury Dolgorukov was assassinated, which sparked the Bulavin Rebellion. This ruler took part on an international expedition called the Grand Embassy while using the fake family name Mikhailov. Domestically, this man placed a tax on beards, weakening his country's noble class known as boyars. This man's forces fought the Battles of Narva and Poltava against Charles XII of Sweden during the Great Northern War. Name this modernizing, eighteenth-century tsar of Russia.

ANSWER: **Peter I** of Russia [or **Peter the Great**; or **Pyotr Alekseyevich**; or **Pyotr Veliky**; prompt on **Peter**]

192-13-84-05121

2. This novel describes one character in terms of Plato's concept of "natural depravity: depravity according to nature." The protagonist of this novel experiences a false sense of relief when he is told, "Handsomely done, my lad!" after spilling his soup. When the protagonist of this novel is offered a pair of coins to participate in a mutiny, he goes into a fit of stuttering. Later, Captain Vere sympathetically argues the necessity of hanging the title sailor for killing the master-at-arms, John Claggart. Name this novella by Herman Melville.

ANSWER: **Billy Budd**

014-13-84-05122

3. In his *Double Portrait in a Honeysuckle Bower*, this man commemorated his marriage to Isabella Brant. This man depicted the *Flight from Blois* and the *Disembarkation at Marseilles* in his cycle depicting the life of Marie de Medici. This man painted two versions of the *Judgment of Paris*, but is better known for a triptych in which eleven muscular men use a ladder to accomplish the title action after the Crucifixion. Name this Flemish artist who painted the *Descent from the Cross* triptych for the Cathedral of Our Lady in Antwerp, known for his numerous full-figured nudes.

ANSWER: Peter Paul **Rubens**

030-13-84-05123

4. One approximation related to these objects states that the index of refraction minus one times the difference between the reciprocal of the radii of curvature equals the inverse of a certain quantity. That approximation is the thin "this device" approximation. When an object is placed off their primary axis they create comas. Their focal length over their focal length minus their distance from an object is equal to their magnifying power. For 10 points, name these optical devices that refract light and come in concave and convex forms.

ANSWER: **lens**

149-13-84-05124

5. This leader willingly gave up information about Korean Air Lines Flight 007 in a move that signaled greater openness. His early policies took elements of "shock therapy" and were called "economic genocide" by his vice president. He illegally dissolved parliament in October 1993 and raided a government building with tanks. He was succeeded by Vladimir Putin. Name this man who served as the first President of the Russian Federation, succeeding Mikhail Gorbachev.

ANSWER: Boris Nikolayevich **Yeltsin**

192-13-84-05125

6. One character in this work insincerely praises a work called "The Couch of Eros" in order to mitigate the anger of another character. That scene also features a character who inquires about the consequences of stirring rice pudding. Characters in this work include Lady Croom, Ezra Chater, and Valentine. Chaos theory and entropy feature prominently in this work, in which Bernard Nightingale and Hannah Jarvis research the past. Identify this play featuring a romance between Septimus Hodge and Thomasina Coverly, a time-shifting play by Tom Stoppard.

ANSWER: Arcadia

189-13-84-05126

7. Lycurgus was inspired to create the constitution of Sparta by studying the government of this place. Idomeneus led armies from this island in the Trojan War. This non-Anatolian place contains the mountain where Zeus was hidden from Cronus, Mount Ida. Talos was a bronze giant that protected this island after Europa was brought here by Zeus. After Europa's grandson Androgeos was killed hunting the Marathonian Bull, Androgeos's father demanded that Athens send fourteen youth to this island every nine years to be killed by the Minotaur. Name this island home to King Minos.

ANSWER: Crete

121-13-84-05127

8. This man explained his concept of "spots of time" in his autobiographical poem *The Prelude*. An example of those occur in a poem where he remembers "mid the din of towns and cities" the scene of "steep and lofty cliffs" he saw with his sister five years earlier. This man explained his goal of using a "selection of language really used by men" in his 1802 preface to *Lyrical Ballads*, which included his "Tintern Abbey." Name this Romantic poet and colleague of Samuel Taylor Coleridge.

ANSWER: William Wordsworth

121-13-84-05128

9. The protagonist of this novella continually encounters disturbing red-haired men, such as a musician and a boatman who says, "You will pay." He also sees various warnings not to eat shellfish. This novella's main character eats some overripe strawberries and sits on the beach watching two boys fight. The protagonist becomes entranced by an adolescent boy named Tadzio. At the end of this novella, the protagonist is infected as a result of the cholera epidemic. Name this Thomas Mann novella about Gustav von Aschenbach visiting the title Italian city.

ANSWER: Death in Venice [or *Der Tod in Venedig*]

052-13-84-05129

10. One composition by this man features flutes playing staccato to represent fallen tears, three massive choruses, and narration by a tenor Evangelist. This composer used an Upper Saxon dialect in a short piece describing tax collection in the eighteenth century, his *Peasant Cantata*. Due to the fact that he worked for Protestant princes, four of this man's five masses contain only the "Kyrie" and "Gloria," in line with the usual Lutheran practice. However, he set the entire Latin service in his landmark *Mass in B minor*. Name this prolific German composer of the *Brandenburg Concertos* and a *Tocatta and Fugue in D minor*.

ANSWER: Johann Sebastian Bach

019-13-84-05130

1. Answer the following about campus life.

[5] Abraham Lincoln gave his landmark "Cooper Union Address" at a namesake college in what city that was also the location of the 1863 Draft Riots?

ANSWER: **New York** City

[10] The 1862 Morrill Act provided for the establishment of what types of colleges originally meant to focus on agricultural and mechanical studies, examples of which include Clemson and Ohio State?

ANSWER: **Land Grant** College [or **Land Grant** Universities]

[15] What California governor cracked down on the Free Speech Movement at Berkeley and unseated Pat Brown, promising to "send the welfare bums back to work?"

ANSWER: Ronald Wilson **Reagan**

[20] What university suffered a hundred-person riot following the announcement of Barack Obama's re-election in 2012?

ANSWER: University of **Mississippi** [or **Ole Miss**]

080-13-84-05101

2. Name these things in the atmosphere.

[5] What belts of charged particles were discovered in 1958 and learned to be three in number in 2013?

ANSWER: **van Allen** belts

[10] Name the circulation pattern that involves air rising near the equator and sinking in the subtropics, around 30 degrees north and south.

ANSWER: **Hadley** cell

[15] What boundary that is found under the stratosphere marks an abrupt change in the lapse rate?

ANSWER: **tropopause**

[20] Sidney Chapman elucidated the reaction that forms what molecule, whose concentration is most commonly measured in Dobson units?

ANSWER: **ozone** [or **O3**; prompt on **oxygen**]

066-13-84-05102

3. Answer the following about hot art.

[5] What man painted the burning of the Houses of Parliament in addition to depicting a locomotive in his *Rain, Steam, and Speed*?

ANSWER: Joseph Mallord William "J.M.W." **Turner**

[10] What Hudson River School artist's cycle *The Course of Empire* concludes with a depiction of the burning of a once great city?

ANSWER: Thomas **Cole**

[15] What painter made the pro-republican scene *The Tragedy of Lucretia* to protest the return of the Medici family, a few years after burning his own works under the influence of the Savonarola government?

ANSWER: Sandro **Boticelli** [or Alessandro di Mariano **Filipepi**]

[20] What Raphael painting in the "Stanza dell'incendio" depicts a conflagration that broke out near St. Peter's in 847 and was miraculously extinguished by Pope Leo IV?

ANSWER: *The **Fire in the Borgo***

019-13-84-05103

4. Answer the following about politicians in the Southwest.

[5] What former governor of New Mexico ran for President on the Libertarian ticket in 2012?

ANSWER: Gary Earl **Johnson**

[10] What former Governor of Utah and Ambassador to China failed to win the Republican nomination in 2012?

ANSWER: Jon Meade **Huntsman**, Jr.

[15] What state's 2012 Senate election was won by John Flake, who replaced retiring Minority Whip John Kyl?

ANSWER: **Arizona**

[20] What governor of Colorado signed controversial gun restrictions into law in March 2013?

ANSWER: John **Hickenlooper**

023-13-84-05104



**Letter E**  
**Letter L**  
**Letter F Again**

Letter E

[10] What devices, often found inside tall buildings, were built to run up the Empire State Building by the Otis company?

ANSWER: **elevators**

[10] Roman legionary standards were topped with an image of what creature?

ANSWER: **eagles**

[10] What African animal is exemplified by the French children's book character Babar?

ANSWER: **elephants**

[10] What poems for the dead are exemplified by Milton's "Lycidas" and many Rilke poems written in Duino castle?

ANSWER: **elegy** [or **elegies**]

[10] The house of Fabergé made many ornate jeweled objects in what three-dimensional shape?

ANSWER: **egg** [or Fabergé **eggs**; prompt on **ellipsoid**]

[10] Margaret Sanger was part of what social movement which urged society to breed evolutionary-advanced children and sterilize others?

ANSWER: **eugenics**

[10] What three-word phrase describes a measure of the separation between positive and negative charges in a polar substance?

ANSWER: **electric dipole moment**

[10] What alloy of silver and gold was used to make the first coins?

ANSWER: **electrum**

[10] What Anatolian city, an addressee of a Pauline epistle, was also home to a wondrous temple of Artemis?

ANSWER: **Ephesus**

[10] What economic quantity's "price" form measures the responsiveness of a good's change in price to a change in its quantity along the demand curve?

ANSWER: price **elasticity** of demand

104-13-84-0510-3

Letter L

[10] What British officer fought alongside Prince Faisal during the Arab Revolt?

ANSWER: Thomas Edward **Lawrence** [or **Lawrence of Arabia**]

[10] What group of fifteen elements on the periodic table constitutes most of the rare earth elements?

ANSWER: **lanthanides**

[10] What organ in humans receives important gases from the bloodstream through the alveoli?

ANSWER: the **lung**

[10] What region of France contains the cities of Metz and Nancy?

ANSWER: **Lorraine**

[10] What British novelist wrote *Tinker, Tailor, Soldier, Spy*?

ANSWER: John **le Carre**

[10] What medieval scholastic wrote four books of *Sentences*?

ANSWER: Peter **Lombard**

[10] What brand of positivism was espoused by Rudolf Carnap and the Vienna Circle?

ANSWER: **logical** positivism

[10] What law of electromagnetism states that an induced electromotive force will have the opposite sign from the original difference in magnetic flux?

ANSWER: **Lenz's** Law

[10] What occasionally obscene English poet wrote "Annus Mirabilis" and "This Be The Verse"?

ANSWER: Philip **Larkin**

[10] What inspector from Scotland Yard appears in the Sherlock Holmes stories?

ANSWER: Inspector **Lestrade**

080-13-84-0510-3

Letter F Again

[10] What is the name of the simplest aldehyde?

ANSWER: **formaldehyde**

[10] Philip Augustus and Hugh Capet were kings of what country?

ANSWER: **France**

[10] What number is the number of years the Israelites wander in the desert in Exodus and the number of cakes stolen by Lex Luthor?

ANSWER: **forty**

[10] Mushrooms are examples of what organisms that comprise a kingdom?

ANSWER: **fungus**

[10] What baseball pitch comes in “four-seam” and “two-seam” varieties?

ANSWER: **fastball**

[10] What was the last name of the founder of psychoanalysis?

ANSWER: **Freud**

[10] Robinson Crusoe befriends a savage whom he gives what name?

ANSWER: **Friday**

[10] What Pacific island country has its capital at Suva?

ANSWER: **Fiji**

[10] John Adams was elected president as a member of what party?

ANSWER: **Federalist**

[10] What was the last name of the author of *The Feminine Mystique*?

ANSWER: **Friedan**

014-13-84-0510-3





1. Rudolf Vrba and Albert Wetzler delivered information on this place to an opposing army. One man who was canonized for being willing to save a stranger in this place was friar Maximilian Kolbe. In this place, twins were separated out and experimented on by doctor Josef Mengele. Rudolf Hoss fitted the iron gate to this place with the overhead inscription "Arbeit Macht Frei," or "Work makes one free." For 20 points, name this site in Poland, the largest death camp run by the Nazis.

ANSWER: Auschwitz-Birkenau [or Oswiecim]

104-13-84-05101

2. It's not a computer, but Joseph Jacquard built one of these machines that received punched cards for its operation. Edmund Cartwright designed the first mechanical type in 1785. John Kay's flying shuttle allowed one person to efficiently use one of these machines. The Frame Breaking Act was intended to protect this type of machine against workers who feared it put them out of work, called Luddites. For 20 points, name this machine used for weaving.

ANSWER: loom

121-13-84-05102

3. This man scored 68 points in a 1977 game against the Knicks, the most points ever scored by a guard at the time. This man and Lou Hudson became the second pair of teammates ever to each score 2,000 points in a season, doing so for the Hawks. His father Press coached him in high school and college, and he scored an SEC-record 69 points in a game against Alabama in 1970 despite the absence of three-pointers at that time. This man died while playing a pickup game in 1989, nine years after retiring from the Jazz. For 20 points, name this LSU basketball player who holds the NCAA Division I record for most points scored and was nicknamed "Pistol Pete."

ANSWER: Pete Maravich

030-13-84-05103

4. This woman was apprehended after the unsuccessful Flight to Varennes. Her son became known as the "Lost Dauphin." This woman was the daughter of Holy Roman Emperor Francis I and Maria Theresa. According to an apocryphal story, this woman responded to reports that the peasants had no bread to eat by declaring, "Let them eat cake." For 20 points, name this Austrian wife of Louis XVI.

ANSWER: Marie Antoinette [prompt on Marie; prompt on Antoinette]

015-13-84-05104

5. Shane Smith was responsible for organizing what some labeled a stunt in this country that also involved correspondent Ryan Duffy. The leader of this country was told "you have a friend for life" by a person who claims that leader said "I don't want to do war." This country was visited in February 2013 by a documentary crew for the HBO series "VICE," as well as some members of the Harlem Globetrotters and a former Chicago Bull. For 20 points, name this country that was visited by Dennis Rodman.

ANSWER: North Korea [or Democratic People's Republic of Korea; or DPRK; or Choson-minjujuui-inmin-konghwaguk; prompt on Korea; do not accept "Republic of Korea"]

023-13-84-05105

6. Supporters of the Holy Roman Empire were barred from holding office in this city by the Ordinances of Justice. The Ciompi Revolt was an uprising of wool workers in this city. This city was home to the pro-Pope Guelphs and the Holy Roman Empire-supporting Ghibellines. The Pazzi conspiracy attempted to overthrow two members of this city's ruling family. The Dominican friar Savonarola burned several works of art in this city during the Bonfire of the Vanities. For 20 points, name this Italian city ruled by the Medici family.

ANSWER: **Florence** [or **Firenze**]

079-13-84-05106

7. This author based his character Mark Rampion on his friend D. H. Lawrence. He depicted himself as Philip Quarles in that same novel, *Point Counter Point*. He wrote a novel in which Podsnap's Technique speeds up reproduction and people regularly use the drug soma. For 20 points, name this author who wrote a dystopian novel that takes place in the "year of Our Ford 632."

ANSWER: Aldous **Huxley** [or Aldous Leonard **Huxley**]

023-13-84-05107

8. A form of therapy originating in this school of thought was developed by Fritz Perls. The founder of this school of thought investigated how a series of stationary images create the illusion of movement in an effect called the phi phenomenon. This school of thought holds that the mind follows the organizational principle of *prägnanz*, and its founding members included Wolfgang Köhler and Max Wertheimer (VERT-hie-mer). For 20 points, identify this school of psychology named for the German word for "figure."

ANSWER: **Gestalt** psychology

014-13-84-05108

9. A newspaper editor refused to speak at this location unless the words "Arm Yourselves and Appear in Full Force" were removed from posters. John Altgeld pardoned the three surviving men of the eight convicted for crimes committed at this place. One of those men, August Spies (SHPEES), edited the *Arbeiter-Zeitung*, which announced a meeting here after Spies heard of workers killed at a McCormick Harvesting Machine plant. Samuel Fielden was speaking here when a policeman was killed, setting off a riot. For 20 points, name this site of a bombing at a Chicago labor protest in 1886.

ANSWER: **Haymarket** Square [prompt on **Chicago** or **Illinois**]

121-13-84-05109

10. One poem by this author discusses a figure who "scraped life with a fine-tooth comb," and "bore two babies under her maiden name." That figure is contrasted with her educated sister in "Sadie and Maud." This poet wrote of "plain chipware on a plain and creaking wood" in her "The Bean Eaters," and won a Pulitzer Prize for her *Annie Allen*. This woman's most famous poem concerns "The Pool Players. Seven at the Golden Shovel," and states, "We jazz June. We die soon." For 20 points, identify this African American poet known for her short poem "We Real Cool."

ANSWER: Gwendolyn **Brooks** [or Gwendolyn Elizabeth **Brooks**]

189-13-84-05110

11. A leader of this country was arrested while campaigning for the National Anti-Reelection Party. That leader of this country was killed during the Ten Tragic Days. After one man from this country attacked Columbus, John Pershing was sent into this country to track him down. La Linea is the street gang associated with the Juarez drug cartel in this country, which is currently waging a war on drugs. For 20 points, name this country whose past revolutionaries in this country include Porfirio Diaz and Pancho Villa.

ANSWER: **Mexico** [or **United Mexican States**; or **Estados Unidos Mexicanos**]

149-13-84-05111

12. In ancient Greek, this type of sentence uses one of two conjunctions, "ei" or "ean." These constructions generally consist of a "protasis" and an "apodosis." Spanish has a special tense for verbs used in these constructions which is formed by adding "-ia" to the infinitive, as in "hablaria." In Latin, types of these constructions include "future more vivid" and "past contrary-to-fact." For 20 points, name this type of sentence exemplified in English by the statement "If you build it, they will come."

ANSWER: **conditional** sentences [or **if-then** statements]

080-13-84-05112

13. Least significant digit and most significant digit are two examples of the radix instance in this class of algorithms. One algorithm in this class constructs a heap, adds elements to it, maintaining the heap property, and then removes them one by one. Many examples of this class of algorithms are divide-and-conquer, including one that reorders an input around a pivot. That one is C.A.R. Hoare's "quick" example. A commonly taught one compares two adjacent elements and switches them if necessary; that is the bubble one. For 20 points, identify this class of algorithms that puts a list in order.

ANSWER: **sorting** algorithms

066-13-84-05113

14. This political group ascribed to the strange "ruin value" theory, which states that buildings should be designed so that they leave aesthetically pleasing ruins when they collapse. One member of this group wears an armband and burns down a building in Marc Chagall's painting *White Crucifixion*. They decried modern art as "degenerate," showcasing the worst offenders in a 1937 exhibition. A large rally of this political group was depicted in the propaganda film *Triumph of the Will*. For 20 points, name this political party, one of whose atrocities is depicted in Pablo Picasso's *Guernica*.

ANSWER: **Nazis** [or **National Socialists**; prompt on **Germans**]

020-13-84-05114

15. This empire put down a rebellion of African slaves near Basra called the Zanj Rebellion. This dynasty had a powerful family called the Barmakids, who were suppressed by its fifth ruler. That ruler of this empire built the House of Wisdom and was named Harun Al-Rashid. This empire came to power in a 750 CE coup and had its capital at Baghdad, which was sacked by the Mongols. For 20 points, name this caliphate that overthrew the Umayyads and ruled the Middle East for five hundred years.

ANSWER: **Abbasid** Caliphate [or **Abbasid** Dynasty, Empire, etc.]

153-13-84-05115

16. An early episode in this show features a then-experimental procedure of pericardiocentesis on a patient suffering from dropsy. On this show, Charles Grigg tries to blackmail his former vaudeville partner, Charles Carosn, who is now a butler. On this television show, the Turkish diplomat Kemal Pamuk dies in the room of Mary; the secret removal of his body is witnessed by the kitchen maid Daisy. The death of Vera leads to the conviction of John Bates, the valet for Lord Grantham, for her murder on this show. For 20 points, what PBS show of British origin centers on the Crawley family?

ANSWER: ***Downton Abbey***

088-13-84-05116

17. Henry Bates's work on the butterflies of this river led to the theory of Batesian mimicry. Marajó (mah-rah-HO) Island is in the estuary of this river, which is known as the Solimões until it receives the Rio Negro. The species *Inia geoffrensis*, a namesake river dolphin, lives here. For 20 points, identify this river which was named when Francisco de Orellano (or-ey-AH-no) claimed to have fought women on its banks.

ANSWER: **Amazon** River [or Rio **Amazonas**]

019-13-84-05117

18. One work by this philosopher analyzes several operas by Mozart in outlining a conception of the “musical erotic.” In that work, Judge Vilhelm argues for the ethical way of life over the aesthetic way of life embodied by Johannes the Seducer. In another work, this philosopher discoursed on the paradoxical nature of the “knight of faith” after presenting four versions of the story of Abraham’s sacrifice of Isaac. For 20 points, name this Danish proto-existentialist who wrote *Either/Or* and *Fear and Trembling*.

ANSWER: Soren **Kierkegaard**

014-13-84-05118

19. This character's accent was adopted from the photographer Weegee. He uses a slide rule to calculate that a female-dominated sample of the human race could emerge from a mine shaft after one hundred years. In the original screenplay, he was named "Von Klutz." Mr. Staines explains to General Turgidson why this character does not have a "Kraut name." He suffers from alien hand syndrome, and his last appearance is rising from his wheelchair, shouting "Mein Führer! I can walk!" For 20 points, name this Peter Sellers-played character who titles a 1964 Stanley Kubrick film about nuclear war.

ANSWER: Dr. **Strangelove**

019-13-84-05119

20. One ambassador from this country married George Clinton's daughter and tried to raise a militia. Elbridge Gerry, John Marshall, and Charles Pinckney were in this nation when the Pinckney said "Not a sixpence!" This country's navy prevented Thomas Graves' fleet from reinforcing Lord Cornwallis at Yorktown. For 20 points, name this country that fought the United States in the undeclared Quasi-War.

ANSWER: **France** [or **French Republic**; or **Republique Francaise**]

052-13-84-05120



1. This man used an ellipsoid with a ridge down the middle and one end flattened in his sculpture *The Newborn*, and he depicted Marie Bonaparte gazing at herself in a mirror in *Princess X*. This man built a war memorial at Targu Jiu that includes *The Stone Table* and the *Endless Column*. One sculpture by this man, consisting of an abstracted vertical wing, was taxed as a kitchen appliance because customs officials refused to believe it was art. Name this Romanian sculptor of the *Bird in Space* series.

ANSWER: Constantin **Brancusi**

195-13-84-05151

2. This poet wrote a poem whose line “Thus in silence in dreams’ projections” is inscribed in the Dupont Circle Metro Station in DC. He claimed he was drunk when he wrote his temperance novel *Franklin Evans*. In one poem, he responds, “I guess it is the handkerchief of the Lord” when asked, “What is the grass?” This poet wrote, “For you they call, the swaying mass,” in a poem which begins by noting that “our fearful trip is done; the ship has weathered every rack, the prize we sought is won.” Name this poet of “O Captain! My Captain!” and the collection *Leaves of Grass*.

ANSWER: Walt **Whitman** [or Walter **Whitman**]

015-13-84-05152

3. In 1984, Tak Wah Mak discovered these cells’ receptors, which had a similar structure but totally different genetic origin than antibodies. They are let out from their organ of origin if they do not attack “self” macrophages, since, if they did, they would attack good cells. These cells with natural killer, cytotoxic, and helper varieties are differentiated by namesake receptors from NK cells and B-cells. Name this group of lymphocytes named for their place of origin, the thymus.

ANSWER: **T**-cells

153-13-84-05153