



1. This object's north is home to the Arabia Terra region, considered to be one its oldest terrains. An enormous impact on this object created a feature that covers nearly 40% of its surface, the Borealis Basin. A continent-size uplifted region in the southern hemisphere of this object is known as the Tharsis bulge. Giovanni Schiaparelli theorized that there were "canals" on this object. The rover *Curiosity* is exploring this object. It is the site of the mountain Olympus Mons and has two moons, Phobos and Deimos. Name this fourth planet from the Sun, known as the "Red Planet."

ANSWER: Mars

052-13-84-02101

2. This author wrote about a man whose quince is laced with a love potion that causes him to believe that he is made of glass. After freeing a galley of slaves, one character created by this man encounters Cardenio in the Sierra Morena. He wrote the *Exemplary Novels*. One of this man's characters goes mad after reading the romances of Amadis of Gaul. A character created by this man travels on a horse named Rocinante and mistakes windmills for giants. Name this Spanish author of *Don Quixote*.

ANSWER: Miguel de Cervantes [or Miguel de Cervantes Saavedra]

149-13-84-02102

3. One statement named for this man indicates that the sharing of edges and faces in anion polyhedra decreases stability in an ionic structure. He published an erroneous three helix structure of DNA and helped elucidate the structure of the alpha helix. This man developed a formula for a certain physical quantity which accounts for valence bond theory and dissociation energies; hydrogen has a value of 2.20 on that scale. He proposed that defects in hemoglobin cause sickle cell anemia. Name this man who developed a scale for electronegativity and won Nobels in Chemistry and Peace.

ANSWER: Linus Pauling

189-13-84-02103

4. This country is the home of the aboriginal Tao people, who share space with the Lanyu nuclear waste facility on its Orchid Island. The Chelung-pu Fault that runs through this country caused the devastating Chi Chi earthquake here in 1999. This country controls the once-threatened islands of Quemoy and Matsu, as well as the Pescadores. In 1971, this country lost its seat at the United Nations to its larger rival. Once known as Formosa, this country competes in the Olympics under the name of its capital. Name this island country on the west of the Philippine Sea which is claimed by China.

ANSWER: Taiwan [or Republic of China; or Chung-hua Min-kuo; or Chinese Taipei; do not accept or prompt on "China" alone]

019-13-84-02104

5. In the voiceover on one of this singer's music videos, she describes how something is "like a kaleidoscope of memories." That song by this singer describes how she heard "from whispers on the street" that a man had "a new notch in [his] belt" and that she's now "lying on the cold hard ground." The music video for another song by this singer shows a band dressed up as woodland creatures and was done in a single continuous take. Name this singer whose album *Red* includes the songs "I Knew You Were Trouble" and "We Are Never Ever Getting Back Together."

ANSWER: Taylor Alison Swift

023-13-84-02105

6. An extremely strong class of these substances includes n-butyllithium and one named for Schlosser. In one classification system, the “soft” type of these substances has higher-energy highest occupied molecular orbitals, or HOMO, than the “hard” type. These substances were classified by Lewis as electron pair donors, and the Bronsted-Lowry system classifies these substances as proton acceptors. Name these substances characterized by high pH’s that are contrasted with acids.

ANSWER: **bases**

014-13-84-02106

7. This emperor defeated Lucius Antonius in a campaign in Perugia. The *Res Gestae* in Ankara features an inscription detailing this ruler's conquests and deeds. This ruler gained political leverage by marrying Scribonia, and rued the Roman loss to Arminius at the Battle of Teutoburg Forest. This man formed the Second Triumvirate with Lepidus and another man, whom this leader defeated at the Battle of Actium. Name this man who defeated Mark Antony and was the first Roman Emperor.

ANSWER: **Augustus** Caesar [or Gaius Julius Caesar **Octavianus**; or **Octavius**]

192-13-84-02107

8. This law’s original form only applies to charge densities that do not vary with time. One method of modifying it is to consider the vacuum and electric field between two plates of a capacitor. Maxwell modified this law to include a term for displacement current. This law says that the line integral of  $\mathbf{B} \cdot d\mathbf{l}$  is equal to  $\mu$  times the enclosed current. Name this law which gives the magnetic field of a wire, named for a Frenchman.

ANSWER: **Ampere's** Law [or **Ampere-Maxwell** law]

048-13-84-02108

9. According to a popular *midrash*, a coal burned this man’s tongue as a child, resulting in his shyness and stutter. In Scripture, this man performs the scientifically-impossible task of crushing gold into powder and dissolving it. This father of Gershom died on Mount Nebo, in part because he struck a rock to produce water against God’s command. Zipporah the Midianite married this prophet, a brother of Miriam and Aaron who saw God in a burning bush. Name this man who led the enslaved Jews out of Egypt and received the Ten Commandments.

ANSWER: **Moses** [or **Moshe**; or **Musa**]

104-13-84-02109

10. In finance, a quantity denoted beta measures this value for an asset. Attempts to base prices on an average value for this quantity lead to a market failure called adverse selection. Daniel Kahneman and Amos Tversky examined its effect on decision-making in creating prospect theory. Diversification can reduce this quantity, as occurs in hedge funds; when it is non-diversifiable, it can be "spread" through insurance. Name this measure of volatility that, when high, can correlate with high returns.

ANSWER: **risk** [or **volatility** before it is read]

080-13-84-02110

11. This composer utilized maracas and bongos in his *Cuban Overture*. A fisherman named Jake sings "A Woman is a Sometime Thing" in an opera by this composer, which includes an aria about a time "when the livin' is easy." His most famous composition, which premiered during the "An Experiment in Modern Music" concert, opens with a seventeen-note clarinet glissando. Identify this American composer of *Porgy and Bess* and *Rhapsody in Blue*.

ANSWER: George **Gershwin**

189-13-84-02111

12. This god is the father of a being who runs a court of justice at Glitnir. His death was avenged by Vali, who grew to adulthood in one day to slay this god's murderer. This god owns a hall named Breidablik. At his funeral, his wife, Nanna, threw herself on the funeral pyre. This being was killed by his own brother, the blind Hoder. This god would have been released from the underworld, but Loki disguised himself as a giantess and refused to cry. Name this Norse god killed by the one object that could slay him, mistletoe.

ANSWER: **Balder**

052-13-84-02112

13. The last stanza of this poem begins with a repetition of the word "Forlorn," which is compared to the tolling of a bell. At one point, this poem's speaker declares he is already with the addressee and exclaims, "Tender is the night!" This poem ends with the speaker asking, "Do I wake or sleep?" The speaker of this poem states that he feels "as though of hemlock I had drunk" while addressing a "light-winged Dryad of the trees." Name this poem containing the line "Thou wast not born for death, immortal bird," an ode by John Keats.

ANSWER: "**Ode to a Nightingale**"

192-13-84-02113

14. In one experiment, this thinker showed that individuals were less likely to mail misplaced envelopes addressed to controversial organizations than those addressed to individuals. He provided evidence that the average path length between two people in the worldwide social network was six people in his "small world" experiment. In another of his experiments, a participant designated a "teacher" was instructed to deliver electric shocks to a "learner." Name this psychologist who conducted a series of experiments on obedience to authority.

ANSWER: Stanley **Milgram**

014-13-84-02114

15. This President won an election in which his opponent dismissed a tariff as being "a local question." Stephen Dorsey and Thomas Brady were implicated in an investigation by this man's Postmaster General, Thomas James, during the Star Route Scandal. This man defeated Winfield Scott Hancock in his only election bid. An attack on this President in a station of the Baltimore and Potomac Railroad led his successor to pass the Pendleton Act. Identify this President who was assassinated by Charles Guiteau.

ANSWER: James Abram **Garfield**

189-13-84-02115

16. This man wrote of how he "had a dream, which was not all a dream" in a poem describing the end of humanity after the sun goes out. This author of "Darkness" wrote a poem in his collection *Hebrew Melodies* that declares, "All that's best of dark and bright meets in her aspects and her eyes." This man wrote an unfinished epic in ottava rima about a man who is repeatedly seduced by women. His most famous lyric begins, "She walks in beauty like the night." Name this Romantic poet who wrote *Don Juan*.

ANSWER: Lord **Byron** [or George Gordon **Byron**; or Baron **Byron**]

121-13-84-02116

17. A graph can be represented by storing the adjacencies of each vertex in one of these data structures. A skip is made from layers consisting of this data structure. The last element of these data structures is usually NULL, but can be changed to reference their first element to form a "circular" one. They're not trees, but operations on these structures can be made easier by adding sentinel nodes. They are often used to implement stacks and queues. Name this data structure whose "doubly" form consists of nodes with pointers to their next node and previous node.

ANSWER: **linked list** [prompt on **list**]

201-13-84-02117

18. This thinker argued that the life of pleasure was inadequate alongside the life lived according to reason for achieving a state of happiness called *eudaimonia*. Succeeded by Theophrastus at the Lyceum, this thinker considered a series of fallacies in his *Sophistical Refutations*, one of six texts comprising his work on logic, the *Organon*. His other texts include *Physics*, *Metaphysics*, and the *Nicomachean Ethics*. Name this student of Plato, a prolific father of Western philosophy.

ANSWER: **Aristotle**

014-13-84-02118

19. This character describes “arms that are braceleted and white and bare” and laments how he is “pinned and wriggling on the wall.” In a textbook example of synecdoche, he states, “I should have been a pair of ragged claws scuttling across the floors of silent seas.” Twice he notes how “in the room the women come and go talking of Michelangelo.” He begins by saying, “Let us go then, you and I, when the evening is spread out against the sky.” Name this character who declaims his own “love song” in a dramatic monologue by T. S. Eliot.

ANSWER: J. Alfred **Prufrock** [or J. **Alfred** Prufrock]

014-13-84-02119

20. One character in this novel travels around the country with a man thirty years younger than her named Germaine. In this novel, Adam receives ritual scars before marrying Tashi, an event relayed by Nettie, the protagonist’s sister. Its first page details the narrator’s rape by a man she believes to be her father. Its protagonist is given up in marriage to Albert, a former lover of Shug Avery. Name this novel, primarily composed of letters to God from Celie, by Alice Walker.

ANSWER: *The* **Color Purple**

192-13-84-02120



1. This mythological figure was suckled by a she-bear after being exposed to die in Arcadia by Schoeneus. At the funeral games for Pelias, this person defeated Peleus in a wrestling match. This figure and her husband were turned into lions for making love in Zeus's temple. Meleager was in love with this woman, so he awarded her the skin of the Calydonian boar. Later, she lost a footrace to Hippomenes (hi-PAW-men-eez) when he threw Aphrodite's golden apples in front of her. Name this huntress from Greek mythology.

ANSWER: Atalanta

014-13-84-02121

2. One of his poems is modeled as a letter signed, "Sincerely, GI Joe," and asks, "Will V-Day Be Me-Day Too?" This poet advised "hold fast to dreams" in another poem, while he described a man "down on Lenox Avenue" in a work about a pianist. He declared "my soul has grown deep" like the title geographical features of another poem, which include the Euphrates and the Congo. Name this poet of "The Weary Blues" and "The Negro Speaks of Rivers," a major figure of the Harlem Renaissance.

ANSWER: Langston Hughes [or James Mercer Langston Hughes]

192-13-84-02122

3. Karin intentionally mutilates herself in one of this director's rare color films, *Cries and Whispers*. In another of his works, a nurse takes care of an actress who has decided to stop talking. This director of *Persona* dramatized a professor's memories while making a trip to receive an award in *Wild Strawberries*. Antonius Block plays chess with Death in this director's hallmark film. Name this Swedish director of *The Seventh Seal*.

ANSWER: Ingmar Bergman

192-13-84-02123

4. The Aarne-Thompson index was created to classify this type of work, which Angela Carter updated in her short story collection *The Bloody Chamber*. Bruno Bettelheim applied Freudian psychoanalysis in his readings of these works. Charles Perrault wrote several of the best-known works in this genre, including "Bluebeard." Other works of this type include "The Emperor's New Clothes" and "Rapunzel." Name this genre of story written by Hans Christian Andersen and collected by the Brothers Grimm.

ANSWER: fairy tales [or folk tales]

080-13-84-02124

5. In 1766, this composer became "Kapellmeister," or music director, for the Esterhazy family. This man composed a work in which the last movement features each musician snuffing out a candle and leaving the stage. In another of this composer's works, the second movement is interrupted by a fortissimo chord during a quiet piano theme. Several of his works were composed during a visit to England and were known as the "London symphonies." Name this Austrian composer of the "Farewell" and "Surprise" symphonies.

ANSWER: Franz Joseph Haydn

052-13-84-02125

6. Leaders of this organization have denied allegations that one of its leaders assumed the identity of David Ford-el and then temporarily headed the Moorish Science Temple of America. A month after leaving this group, a man gave the "Ballot or the Bullet" speech. Some of the teachings of this organization focus on a scientist named Yakub. Members of this organization were responsible for an assassination in the Audubon Ballroom. Its leaders have included Wallace Fard Muhammad and Louis Farrakhan. Identify this American religious organization that was left in 1964 by Malcolm X.

ANSWER: **Nation of Islam**

189-13-84-02126

7. This law contributes the first term of the Lorentz force. The constant in this law equals one over four pi times the permittivity of free space. An expression for electric field can be calculated by dividing both sides of this equation by a test charge. Like Newton's Law of Gravitation, this law gives an inverse-square dependence on distance. For 10 points, name this law which gives the force between two stationary charges.

ANSWER: **Coulomb's** Law

048-13-84-02127

8. This poem discusses objects of which "some are loaves and some so nearly balls, we have to use a spell to make them balance." This poem's speaker claims, "Spring is the mischief in me," and he says of another man that "he is all pine and I am apple orchard." The speaker of this poem claims that "something there is that doesn't love" the title structure and "sends the frozen-ground-swell under it." The refrain "good fences make good neighbors" appears in this poem. What is this Robert Frost poem about a barrier?

ANSWER: "**Mending Wall**"

126-13-84-02128

9. During this monarch's reign, William Paxton built a Crystal Palace for the Great Exhibition. The last ruler of the House of Hanover, this monarch entered perpetual mourning after the death of Prince Albert of Saxe-Coburg Gotha. She led the United Kingdom during the construction of the Suez Canal, the controversy over the Corn Laws, the Irish Potato famine, and the Crimean War. Name this longest reigning British monarch of all time, a queen who died in 1901.

ANSWER: Alexandrina **Victoria**

015-13-84-02129

10. With reflexive verbs in this aspect, French uses "être" rather than "avoir" as the auxiliary verb. Spanish uses "haber" as the auxiliary verb to this aspect in all cases. In English, this aspect is formed by following a conjugated form of "to have" with the past participle. Name this verb aspect that refers to past actions bearing on the present, as in the phrase, "I have finished," and in most languages is closely linked to the past tense.

ANSWER: **perfect** aspect [or **perfect** tense]

121-13-84-02130

1. Answer the following about literary adventures.

[5] Who wrote the dog-based adventure novels *White Fang* and *The Call of the Wild*?

ANSWER: Jack **London**

[10] What character falsely claims that he is George Jackson when he stumbles upon the Shepherdson and Grangerford feud?

ANSWER: **Huckleberry** Finn [or Huckleberry **Finn**; or **Huck** Finn; or Huck **Finn**]

[15] What type of novel, exemplified by *Gil Blas*, generally has a rascally young protagonist who escapes dangers by his wits?

ANSWER: a **picaresque** novel

[20] What picaresque novel tells of a young Spanish boy who uses his wits to endure a blind beggar and other masters?

ANSWER: **Lazarillo de Tormes**

149-13-84-02101

2. Answer the following about Presidential nominations to the Supreme Court.

[5] What president unsuccessfully nominated John Rutledge to the Supreme Court in an attempt to replace Chief Justice John Jay, who negotiated a namesake treaty with Britain during this man's term?

ANSWER: George **Washington**

[10] Lyndon Johnson unsuccessfully nominated Abe Fortas as Chief Justice to replace what man, who led the Court during the *Brown v. Board* decision?

ANSWER: Earl **Warren**

[15] Who unsuccessfully tried to nominate his counsel Harriet Miers to the Supreme Court?

ANSWER: George **Walker Bush** [or **Bush II**; or **Bush 43**; or anything distinguishing him from his father; prompt on **Bush**; do not accept "George Herbert Walker Bush"]

[20] What campaign manager of Abraham Lincoln did Lincoln elevate to the Supreme Court, where he remained until he was named to the Senate from Illinois in 1877 in a failed attempt to sway his vote on the Electoral Commission?

ANSWER: David **Davis**

052-13-84-02102

3. Answer the following about preserved thing.

[5] The Catal Huyuk and Troy archaeological sites are in what modern-day country?

ANSWER: Republic of **Turkey** [or **Türkiye** Cumhuriyeti]

[10] Otzi the Iceman, a 6000-year-old corpse mummified by ice, was found in what mountain range containing the Matterhorn?

ANSWER: the **Alps**

[15] What desert's "White Cave" houses proto-human artifacts up to seven hundred thousand years old?

ANSWER: **Gobi** desert

[20] The Urn Tomb, the Palace Tomb, and the Corinthian Tomb are found at what World Heritage Site built by the Nabateans?

ANSWER: **Petra**

019-13-84-02103

4. Answer the following about fundamental physics.

[5] Name the gauge boson that is the quantum of light.

ANSWER: **photon**

[10] The existence of the Higgs boson would explain why particles have this quantity.

ANSWER: **mass**

[15] W and Z bosons moderate what force?

ANSWER: **weak** nuclear force [or **weak** interaction]

[20] What mass and spin define a graviton?

ANSWER: mass of **0** [or **massless**] and spin **2** [answers must both be correct, but order does not matter]

189-13-84-02104





**Letter A**

**Letter O**

**Letter V**

Letter A

[10] What Greek scientist allegedly shouted "Eureka" after discovering his namesake principle of buoyancy?

ANSWER: Archimedes

[10] What ornithologist created all the colored illustrations in his work *Birds of America*?

ANSWER: John James Audubon [or Jean-Jacques Fougere Audubon; or Fougere Rabin]

[10] What Chilean magical realist wrote about the Trueba family in her novel *The House of the Spirits*?

ANSWER: Isabel Allende

[10] What word coined by sociologist Auguste Comte describes considering what is good for others above personal needs?

ANSWER: altruism

[10] What city in New York had a congress where Benjamin Franklin proposed a Plan of Union?

ANSWER: Albany

[10] What term in physics describes the distance from the middle of a wave to its crest or trough?

ANSWER: amplitude

[10] What liturgical season begins four Sundays before Christmas?

ANSWER: Advent

[10] What country was led by Ahmed Ben Bella after it gained independence from France in 1962?

ANSWER: People's Democratic Republic of Algeria [or Al Jumhuriyah al Jaza'iriyah ad Dimuqratiyah ash Sha'biyah]

[10] What author wrote about the rabbits Hazel, Fiver, and Bigwig in his novel *Watership Down*?

ANSWER: Richard George Adams

[10] What Iranian president was criticized for how he consoled Hugo Chavez's mother in March 2013?

ANSWER: Mahmoud Ahmadinejad

023-13-84-0210-3

Letter O

[10] In what play does the Stage Manager narrate the daily activity of Grover's Corners?

ANSWER: **Our Town**

[10] Which painting by Edouard Manet echoes Titian's *Venus of Urbino* but has a black maid in the background?

ANSWER: **Olympia**

[10] What Danish physicist first noticed that an electric current causes a compass to deflect because currents create magnetic fields?

ANSWER: Hans Christian **Oersted**

[10] What river is the longest to flow through Venezuela?

ANSWER: **Orinoco** River

[10] Who was killed on live TV by a nightclub owner on November 24, 1963, while being transferred to the Dallas county jail?

ANSWER: Lee Harvey **Oswald**

[10] Which author was exiled to the Black Sea in 8 AD, soon after his epic poem *Metamorphoses* was written?

ANSWER: Publius **Ovid** Naso

[10] In economics, what name is given to the value of all the alternatives which are given up when an economic decision is made?

ANSWER: **opportunity cost**

[10] Which event was first held in the modern era in 1896 in Athens, Greece?

ANSWER: **Olympic** Games [or Summer **Olympics**]

[10] What one-syllable word appears at the start of Vedas and other holy Hindu texts, representing the name of God?

ANSWER: **om**

[10] What disease causes the weakening of bone density and is especially frequent in the elderly?

ANSWER: **osteoporosis**

190-13-84-0210-3

## Letter V

[10] What type of being is killed by Quincy Morris's wooden stake in Bram Stoker's most famous novel?

ANSWER: **vampires**

[10] The Hall effect produces what electromagnetic quantity across a conductor transverse to a perpendicular magnetic field?

ANSWER: Hall **voltage** difference

[10] What divine bard befriends the smith Ilmarinen in the Finnish epic *Kalevala*?

ANSWER: **Vainamoinen**

[10] Which Ohio politician, a leading Copperhead, escaped to Canada after accusations of treason during the Civil War?

ANSWER: Clement **Vallandigham**

[10] What 2005 comic book film inspired members of the hacking group Anonymous to wear its anarchist central character's Guy Fawkes mask?

ANSWER: **V for Vendetta**

[10] What term names the people who swore fealty to a lord under feudalism, be they peasants or knights?

ANSWER: **vassals**

[10] What thin tube-like structures, often colored blue on circulatory diagrams, carry deoxygenated blood in the body?

ANSWER: **veins** [prompt on blood **vessels**]

[10] What parts of speech can be auxiliary, have aspect, or be in subjunctive mood?

ANSWER: **verbs**

[10] What fluid quantity can be measured in units of poise for its dynamic variant and in stokes for its kinematic variant?

ANSWER: **viscosity**

[10] What Hitchcock film, set in San Francisco, features the mentally-troubled retired detective Scottie Ferguson and ends on a bell tower?

ANSWER: **Vertigo**

104-13-84-0210-3





1. This writer adapted elements of the Jerilderie Letter into a novel whose protagonist writes his autobiography for the benefit of his daughter with Mary Hearn. That character created by this man flees with his brother Dan after shooting Constable Fitzpatrick. In another novel by this man, a wealthy heiress bets an Anglican priest that he cannot transport a glass church across the continent. For 20 points, name this Booker Prize-winning novelist of *True History of the Kelly Gang* and *Oscar and Lucinda* who hails from Australia.

ANSWER: Peter Carey [or Peter Philip Carey]

014-13-84-02101

2. During a presidential election, one man holding this post was asked by Bernard Shaw if he favored the death penalty for a hypothetical rapist and murderer of his wife. That man in this post was attacked by an ad showing him driving a tank and another connecting him to criminal Willie Horton. The longest serving man in this post was the Democratic loser of the 1988 presidential election, Michael Dukakis. For 20 points, name this position currently held by Deval Patrick, who succeeded Mitt Romney in 2007.

ANSWER: Governor of the Commonwealth of Massachusetts [prompt on partial answer]

052-13-84-02102

3. Tendons attached to the muscles that control this body part are injured in De Quervain's syndrome. Stephen Jay Gould wrote an essay about a body part in pandas that resembles this human part but is actually a modified radial sesamoid bone. This body part is moved by the flexor pollicis longus. Some genetic disorders cause these to have the potter's or murder's morphology. For 20 points, name this body part where the first metacarpal is located.

ANSWER: thumb

001-13-84-02103

4. The first one of these events in Ireland took place at Rechru in 795. An agreement to prevent these events was the Treaty of Saint Clair-sur-Epte, which led to the foundation of a duchy by a leader of these actions, Rollo. An event of this kind destroyed the cover of the Lindisfarne gospels. These events often targeted the wealth of monasteries and were perpetrated from longboats. For 20 points, name these events that terrorized medieval societies and resulted in plunder being taken to Norway.

ANSWER: Viking raids [or obvious equivalents]

019-13-84-02104

5. One painting by this man depicts a woman in a green coat with one glove on drinking tea. This painter of *Automat* also created a work in which two women are seated in a restaurant with a red teapot and green bowl on the table. This artist of *Chop Suey* showed an advertisement for five cent Phillies cigars above three customers and a man in white who are all in a diner. For 20 points, name this American realist.

ANSWER: Edward Hopper

023-13-84-02105

6. A legend above this painting explains its meaning in Latin with the words "Causarum Cognitio (cog-NIT-ee-oh)." This painting sits in the Apostolic Palace, facing the same artist's *La Disputa* in the Stanza della Segnatura. The leftmost person in it is Zeno of Citium, and Diogenes lounges alone in blue on the steps in its center. For 20 points, identify this painting in which over twenty ancient philosophers congregate, for which contemporary painters were used as models by its creator, Raphael.

ANSWER: *The School of Athens*

019-13-84-02106

7. This organism can cause violin-string adhesions to the liver in FitzHugh-Curtis syndrome. This organism cycles through elementary body and reticular body phases. This organism also causes a form of conjunctivitis with inclusion bodies in the newborn children of infected patients. This bacterium, like *Neisseria*, can cause pelvic inflammatory disease and urethritis. For 20 points, name this causative agent of the most common sexually transmitted disease.

ANSWER: chlamydia trachomatis [or C. trachomatis]

048-13-84-02107

8. The influence of Utagawa Hiroshige (hee-row-SHE-gay) on this artist can be seen in his *Bridge in the Rain* and in the background to his portrait of art dealer Pere Tanguy. This artist painted pictures of his bedroom and the Yellow House in which he lived in Arles. In one painting, this artist depicted a woman pouring coffee at the square table of the five title people, who are lit by a small oil lamp hanging from the ceiling. Another painting by this man shows Saint Remy under a swirling evening sky. For 20 points, name this painter of *The Potato Eaters*.

ANSWER: Vincent Willem van Gogh

023-13-84-02108

9. In 1988, fires in this state consumed part of the John D. Rockefeller Jr. Memorial Parkway. It is home to a location frequently used for Native American vision quests, the Medicine Wheel National Historic Landmark. A popular site for trapping in this state is called Jackson Hole. This state contains the first United States National Monument, a site known as "Bear Lodge" by the Lakota. For 20 points, name this least populous of the fifty states, the primary location of Grand Teton and Yellowstone National Parks.

ANSWER: Wyoming

052-13-84-02109

10. This computer scientist created the concept of the arithmetic logic unit. With Stanislaw Ulam, this scientists developed, and named, Monte Carlo methods. He created an algorithm that divides a list of length  $n$  into  $n$  sublists, then concatenates them in an organized fashion to sort them. That algorithm is merge sort. The Harvard architecture is a rival scheme for computer organization to one this scientist devised. For 20 points, identify this man who created an architecture in which instructions and memory access occur on the same bus.

ANSWER: John von Neumann

066-13-84-02110

11. It's not the mitochondria, but these organelles are the site of the Mot complex, which pumps protons. Cryptomona unusually have two of these on either side. They evolved from the type III secretory system. This organelle's subcomponents are interconnected by dynein, and one side of it is attached to the basal body. It consists of nine doublets of microtubules arranged in a central doublet. For 20 points, name these whiplike projections used by cells to move.

ANSWER: flagella [or flagellum; do not accept or prompt on "cilium" or "cilia"]

048-13-84-02111

12. Repertoire cloning can be accomplished by PCR on individual ones of these cells. These cells express CD19 and C20 on their membranes. These cells proliferate in the germinal center of a lymph node. These cells rearrange their variable, diversity, and joining genes in order to create their namesake receptor. They differentiate in the bone marrow, and after activation can further differentiate into plasma and memory types. For 20 points, name these lymphocytes that secrete antibodies.

ANSWER: **B** lymphocytes

048-13-84-02112

13. Emily Dickinson had this author's poem "No Coward Soul Is Mine" read at her funeral. She and her younger sister invented a fantasy world they named "Gondal." One of her characters marries Isabella Linton as part of his plan for revenge. This author, who used the pen name Ellis Bell, wrote a novel which is narrated in sections by the servant Nelly Dean and a gentlemanly tenant of Thrushcross Grange named Mr. Lockwood. In that novel by this author, Catherine Earnshaw marries Edgar Linton despite her powerful love for the orphan Heathcliff. For 20 points, name this author of *Wuthering Heights*.

ANSWER: **Emily Bronte** [prompt on **Bronte**]

015-13-84-02113

14. A novel set in one of these locations, known as a *sharashka*, is entitled *The First Circle*. Captain Buynovsky's ability to survive in one of these places is doubted in one novel. That novel is set in one of these places whose residents include the elderly Y-81, Alyosha the Baptist, and other "zeks." For 20 points, what locations were described as an "Archipelago" in a memoir by Alexander Solzhenitsyn, who was imprisoned in one under Stalin?

ANSWER: **gulags**

030-13-84-02114

15. This team nearly changed its nickname in 1994 to the "Swamp Dragons." This team's first draft pick in the NBA was Bernard King. An expected surge in this team's performance was delayed after a 1993 car wreck killed guard Drazen Petrovic. This team fired Lawrence Frank in 2010 after they lost sixteen straight games to start the season. They reached the 2002 and 2003 NBA Finals largely due to Jason Kidd, and won two ABA championships behind Julius Erving. For 20 points, name this NBA team, partially owned by Jay-Z.

ANSWER: **Brooklyn** Nets [or Brooklyn **Nets**; or **New Jersey** Nets; prompt on **New York** Nets, their original name]

088-13-84-02115

16. This statue was continuously wiped with olive oil to prevent cracking. When this statue was completed for a temple designed by Libo of Elis, a lightning bolt hit the temple but did no damage. Strabo criticized this statue as being too large, as its head nearly touched the roof even though the statue is seated. This was the largest statue made of chryselephantine, a material combining gold and ivory. It was designed by Phidias in order to oversee ancient athletic games. For 20 points, identify this ancient wonder of the world.

ANSWER: Statue of **Zeus** at Olympia

019-13-84-02116

17. This leader was defeated in an election by the Janata Party and Morarji Desai. "Garibi Hatao," a phrase meaning "Stop Poverty," was used in several campaigns to elect this leader. The Smiling Buddha nuclear test was approved during this leader's tenure. After being indicted by her country's Supreme Court, this leader decided to call a State of Emergency in 1975. This woman ordered Operation Blue Star against Sikhs at the Golden Temple, which led to her assassination in 1984. For 20 points, name this daughter of Jawaharlal Nehru who was a female Prime Minister of India.

ANSWER: **Indira Priyadarshini Gandhi** [prompt on **Gandhi**]

192-13-84-02117



18. Men involved in the negotiation of this treaty included Johan Adler Salvius and Johann Krane, and the Duke of Mecklenburg ceded Wismar following this agreement. Count Maximilian von Trautmansdorff represented the Holy Roman Empire during the negotiations for this agreement, which consisted of two treaties signed at Munster and Osnabruck. Innocent X's "Zelo domus Dei" condemned this agreement, which reversed Ferdinand II's Edict of Restitution. This agreement re-affirmed the Peace of Augsburg. For 20 points, identify this 1648 treaty which ended the Thirty Years' War.

ANSWER: Peace of **Westphalia**

189-13-84-02118

19. This leader spent 800 days in a headquarters called the "Wolf's Lair." This ruler's last will named his secretary Martin Bormann as Party Minister. This man's military drafted planned invasions known as Case White and Case Blue. He was almost killed during the failed 20 July Plot, which was part of Operation Valkyrie. For 20 points, name this man who dictated his autobiography to Rudolf Hess while imprisoned after the failed Beer Hall Putsch.

ANSWER: Adolf **Hitler**

052-13-84-02119

20. In a play by Sophocles, this man and Neoptolemus (nee-op-TALL-eh-mis) try to convince Philoctetes to join them at Troy. Palamedes (pal-uh-MEE-deez) proved this man was not mad by placing his son in front of an oncoming plow. He spent seven years imprisoned by Calypso, and angered Poseidon by blinding the cyclops Polyphemus. He and his son Telemachus (teh-LEM-uh-kus) defeat the suitors of his wife Penelope. For 20 points, name this king of Ithaca.

ANSWER: **Odysseus** [or **Ulysses**]

121-13-84-02120



1. This organ is surrounded by lymphatic capillaries known as lacteals. I cells in the mucosal epithelium of this organ secrete the hormone cholecystokinin. The autoimmune celiac disease drastically changes the morphology of this organ, the site of sodium bicarbonate and vitamin B12 absorption. This organ's surface area is greatly expanded by villi. This organ consists of three main segments: the ileum, the jejunum, and the duodenum. Name this digestive organ that follows the stomach and precedes a "large" variant in the GI tract.

ANSWER: small intestine [prompt on intestine; do NOT accept large intestine]

020-13-84-02151

2. Eleanora Gonzaga commissioned the baroque Schonbrunn palace in this city while married to the ruling Holy Roman Emperor, Ferdinand II, who lived in it. The Polish king Jan III Sobieski defended one attack on this city, which withstood 1683 and 1526 sieges by the Ottoman Empire. Castlereagh and Talleyrand met with Klemens von Metternich during an 1814 to 1815 Congress in this city. Name this Habsburg capital in Central Europe.

ANSWER: Vienna [or Wien]

104-13-84-02152

3. This country was led by the ten-year-old female "king" Jadwiga (yahd-VEE-guh), who descended from its Piast Dynasty. In the late eighteenth century, this country was partitioned three times by surrounding powers. From 1569 to 1795, this country formed a commonwealth with Lithuania. On September 1, 1939, Germany invaded this country in a move soon bolstered by a simultaneous Soviet attack. Name this country that was the location of the 1943 Warsaw ghetto uprising.

ANSWER: Republic of Poland [or Rzeczpospolita Polska]

015-13-84-02153