Tossups:

**The *Jeanie Johnston* had a perfect safety record while transporting refugees of this event, who often fled in coffin ships. "Souperism" was the practice of providing food and Protestant teaching to Catholic children who suffered in this event. It was ended in part by Robert (\*)** Peel's 1846 revoking of the Corn Laws, allowing cheaper food imports. For 10 points, name this mass starvation in 19th century Ireland, caused by a blight of a certain crop.

Answer: (Great) **Irish Potato Famine** (accept any answer that describes **hunger** in **Ireland** related to bad **potatoes**, though "Irish" is not needed after "Ireland" is mentioned; prompt on partial answer)

<HIST, EURO>

**The speaker of this poem, “knowing how way leads on to way,” believes he “shall be telling this with a sigh / somewhere ages and ages hence.” This poem describes “leaves no step had trodden black,” on a path “less traveled by” that the speaker finds in a (\*)** “yellow wood,” and it concludes “and that has made all the difference.” For 10 points, name this Robert Frost poem in which the speaker chooses between two “equal” paths.

# Answer: The Road Not Taken

<LIT, AMER>>

3. **This country lies southeast of Mayotte, a French département that is claimed by Comoros. While it itself was under French control, this country became known as the Malagasy Republic for two decades before its full independence. This fourth largest (\*)** island in the world is separated from the mainland by the Mozambique Channel. For 10 points, name this African island nation with capital Antananarivo, home to many lemurs.

# Answer: Madagascar

<GEO, GEO>>

**An ideal gas of these particles cooled near absolute zero shows quantum effects on a large scale. The W and Z particles are subtypes of these particles that carry the weak force, and in 2013, the Large Hadron Collider tentatively (\*)** confirmed the existence of one of these particles that carries mass. For 10 points, name these elementary particles with integer spin, contrasted with fermions and exemplified by the mass-carrying “Higgs” type.

Answer: **boson**s

<SCI, PHYS>>

**A scout quit his job when Houston didn't pick this player #1 overall in 1992. In 2011, he homered off David Price for his 3,000th hit. A recording of Bob Sheppard's voice introduced this player's home at-bats, including a (\*)** walk-off single in his final home game. For 10 points, name this captain who wore number 2 as the starting shortstop for five World Series-winning New York Yankees teams before retiring in 2014.

Answer: Derek **Jeter**

<TRASH, SPORTS>>

**In one work by this author, the fake doctor Callimaco tricks Nicia and sleeps with his wife, Lucrezia. This author of *The Mandrake* praised Roman republics, and another work compared fortune to a lady who must be beaten. He noted Cesare Borgia as a rare case of a successful (\*)** ruler who gained power through luck, rather than force, as it is "safer to be feared than loved." For 10 points, name this 16th century Italian author of *The Prince*.

Answer: Niccolo **Machiavelli**

<RMPSS, PHIL>>

**Ireland's Giant's Causeway consists of hexagonal columns of this type of rock. It can be divided into felsic rocks, like rhyolite, and mafic rocks, like scoria, which may have gas bubbles trapped within it during its rapid formation. Other examples of this type of rock include (\*)** basalt and pumice, which form from the cooling of lava. For 10 points, name this classification of rocks, one of three main types with sedimentary and metamorphic. Answer: **igneous** rocks (accept **basalt** before "felsic")

<SCI, OTHER>>

**This man stabbed Henry Rathbone to begin his escape. Boarding house owner Mary Surratt was one of four people hanged for conspiring with this man, who was shot and killed in a burning barn. Samuel Mudd was arrested for treating this man's (\*)** leg, which was broken after he fell to the stage of Ford's Theater, shouting "Sic semper tyrannis!" For 10 points, name this actor and Confederate supporter who, on April 14th, 1865, shot and killed Abraham Lincoln.

Answer: John Wilkes **Booth**

<HIST, AMER>>

**Both ammonia and this element bond to platinum in the chemotherapy drug cisplatin. The insecticide DDT contains carbon, hydrogen, and this element. An acid of this element combines with nitric acid to give (\*)** aqua regia; that acid is also found in the stomach and is commonly used in titration. For 10 points, name this element, commonly used to clean swimming pools, whose atomic symbol is Cl.

Answer: **chlorine**

<SCI, CHEM>>

**On the right side of this painting is a red barn, and on the left, a green railing can be seen on the porch of the Dibble House, which the artist encountered in Iowa. One of the two central figures in this work wears a colonial apron, and the other wears (\*)** overalls. The artist’s sister and dentist modeled for, for 10 points, what Grant Wood painting, in which a sad-looking woman and a farmer holding a pitchfork stand in front of a house?

# Answer: American Gothic

<FA, VISUAL>>

**In one novel by this author, George Ponderevo helps his uncle sell the title fake drug, *Tono Bungay.* He wrote about Prendrick and human-animal hybrids in *The Island of Doctor Moreau.*  In one novel, the protagonist loses an Eloi named Weena in a fire he sets to escape the (\*)** Morlocks, and in another, Martians invade Earth but are killed by common disease. For 10 points, name this author of *The Time Machine* and *The War of the Worlds.*

Answer: H(erbert) G(eorge) **Wells**

<LIT, BRIT>>

**In Judaism, one of these creatures is a transformed man named Enoch, and another creature of**

**this type stood in the way of Balaam’s donkey. Two of these creatures visited Lot’s home before the destruction of Sodom. These creatures are organized into (\*)** “hosts,” which include seraphim and cherubim. For 10 points, name these holy beings, whose leaders include Michael and Gabriel, and who are often depicted wearing halos.

Answer: **angel**s (accept **archangel**s before “Balaam” is read)

<RMPSS, REL>>

**In this leader's farewell address, he noted that, until World War II, "American makers of plowshares could [...] make swords as well." He used the Army to desegregate Central High School in Little Rock, and he was inspired by the Autobahn to develop the national (\*)** Interstate system. This Supreme Commander of the Allied Forces led the invasion of Normandy on D-Day. For 10 points, name this general who served as U.S. President following Harry Truman.

Answer: Dwight David **Eisenhower**

<HIST, AMER>>

**The title object of this musical composition is forged by Alberich. Its composer built a theater in Bayreuth [bi-ROYT] specifically to host this work, which takes 16 hours to perform over four nights. It ends with Brunnhilde riding into a (\*)** funeral pyre and the burning of the Hall of the Gods. *Das Rheingold* [RINE-gold], *Die Walküre* [dee VAL-koor], *Siegfried*, and *Götterdämmerung* make up, for 10 points, what epic four-opera "cycle" written by Richard Wagner [ree-kart VAHG-ner]? Answer: The **Ring of the Nibelung** (or The **Ring Cycle** or the Der **Ring des Nibelungen**; accept Das Rheingold before "16 hours" is read)

<FA, OTHER>>

**This author wrote about an old woman who refused payment to a thieving doctor because she**

**couldn’t see her belongings. In other stories by this man, a mouse saves a lion from hunters and a farmer kills a goose that lays (\*)** golden eggs. Another of his tales teaches that “slow and steady wins the race.” “The Tortoise and the Hare” and “The Boy who Cried Wolf” are by, for 10 points, this ancient Greek author of namesake fables.

Answer: **Aesop**

<LIT, OTHER>>

**These mathematical objects have inverses if and only if they are bijective. If one of these objects is “onto,” then its entire range is covered; if it is “one-to-one,” it can pass the horizontal line test in addition to the (\*)** vertical line test, which all of these objects can pass. For 10 points, give this mathematical term describing a relation for which each input has exactly one output, often written *f(x)* ["f of x"].

Answer: **function** (prompt on “map” or “mapping;” prompt on “graph”)

<SCI, OTHER>>

**Levels of this molecule in the liver are reduced by HMG CoA [koh-ay] reductase inhibitors, better known as statins. This molecule, which is transported through the circulatory system by lipoproteins, is a precursor of vitamin D and estrogen. A build-up of this waxy substance can cause (\*)** atherosclerosis, the hardening of arteries. For 10 points, name this modified steroid molecule whose

LDL, or low-density, form is known as its “bad” type for its role in heart disease.

Answer: **cholesterol**

<SCI, BIO>>

**The exile Hippias advised the losing side in this battle, whose men panicked and ran into swamps. The winning general of this battle, Miltiades [mill-tye-ah-dees], organized troops to defend the only two paths off the beach, then ordered a devastating phalanx assault. After this loss for (\*)** Darius the Great, the Persian army retreated from Greece for 10 years. For 10 points, name this 490 BCE battle, after which Pheidippides [fay-ih-dip-ih-dees] legendarily ran 26 miles to Athens.

Answer: Battle of **Marathon**

<HIST, OTHER>>

**This goddess turned the spilled blood of her lover into sea anemones after he was killed by a boar. This goddess, who was worshipped at Cythera, was offered to a misshapen god, but her infidelity was exposed by Helios. She was the lover of (\*)** Adonis, and was trapped by her husband when this mother of Eros had an affair with Ares. For 10 points, name this wife of Hephaestus, the Greek goddess of love and beauty.

Answer: **Aphrodite** (accept **Venus** before “Cythera” is read)

<RMPSS, MYTH>>

**John** **Keats wrote a poem about George Chapman’s translation of this author, who wrote about unfortunate characters who eat Helios’s cattle in one of his works. This author wrote about the “Wrath of Achilles” and about (\*)** Penelope, the mother of Telemachus, who undoes her weaving every night as she waits for her husband to return to Ithaca after the Trojan War. For 10 points, identify this author of *The Iliad* and *The Odyssey.*

Answer: **Homer**os

<LIT, OTHER>>

**This ruler was supported and succeeded by the vizier Ay. This successor of Smenkhare reverted many of the religious reforms made by his father, including the worship of Aten. After dying, possibly in a chariot accident, he was buried in (\*)** KV62, a tomb discovered in 1922 by a team led by Lord Carnavon and Howard Carter. For 10 points, name this son of Akhenaten, a boy Pharaoh of Egypt.

Answer: **Tutankhamun** (accept "King **Tut**")

<HIST, OTHER>>

**One form of this action, Fajr [fah-jur], consists of 2 raka’at [ray-kah-aht] before sunrise. The adhan is a call by the muezzin for people to perform this action, which is preceded by wudu, a ritual washing. This action, led in congregation by the (\*)** imam, is the second pillar of Islam. For 10 points, name this religious practice, called salat in Arabic, that is performed five times each day while facing Mecca.

Answer: (Islamic) **prayer** (accept **salat** before mention)

<RMPSS, REL>>

**One king of this name was arrested in Varennes [vah-REN] while fleeing from a revolt. An earlier king of this name was a child when the nobles rose against him in the Fronde uprising. The House of Capet included five kings of this name. The last king of this name took power in the 1814 (\*)** Bourbon Restoration, and the longest serving king of this name was nicknamed "the Sun King." For 10 points, give this name shared by eighteen royal leaders of France.

Answer: **Louis**

<HIST, EURO>>

**This number is squared in the solution to the Basel problem. One experiment to calculate this number exploits the Buffon's needle problem. Archimedes (\*)** approximated this number, the number of radians in 180 degrees, by bounding it by the perimeters of 96-sided polygons, finding that it is less than 22 over 7. For 10 points, give this ratio of a circle's circumference and diameter, an irrational number approximately equal to 3.14.

Answer: **pi**

<SCI, OTHER>>

**Clara sings that "Fish are jumpin' and the cotton is high" in this composer's song**

**"Summertime." He included bongos and maracas in his *Cuban Overture*, and he wrote songs like**

**“Embraceable You” with his brother (\*)** Ira. He improvised the piano part at the 1924 premiere of his most famous work, a fusion of classical music and jazz. For 10 points, name this American composer of *Porgy and Bess* and *Rhapsody in Blue*.

Answer: George **Gershwin**

<FA, AUDIO>>

**In this work, David Gamut tries to teach beavers to sing psalms, and Heyward pretends to be a medicine man so he can rescue Alice. Cora Munro is captured by Magua, who kills Uncas during a failed rescue attempt by (\*)** Chingachgook and Natty Bumppo, who is also known as Hawkeye. For 10 points, identify this second novel in *The Leatherstocking Tales*, a work by James Fenimore Cooper.

Answer: The **Last of the Mohicans**

<LIT, AMER>>

**The instinctive palmar grasp reflex is this type of behavior in human babies, and Robert Wiedersheim mistakenly included the pineal gland in his list of 86 of these structures. The muscles that cause goosebumps may be this type of organ, as are (\*)** kiwi’s wings and the pelvic bones of whales. The human tailbone and appendix are examples of, for 10 points, what type of structure that served a role in an ancestor species but do not have a present function?

Answer: **vestigial** structures (accept "organs" or "behaviors" in place of "structures")

<SCI, BIO>>

**Philae was the center of this goddess’s cult. This goddess made a snake out of earth to bite Ra, which forced Ra to give up his true name. This goddess searched for a tamarisk tree to find her dead husband after he was tricked by (\*)** Set; she later reassembled thirteen pieces of that husband to make him the god of the dead. For 10 points, name this Egyptian goddess, the mother of Horus and wife of Osiris.

Answer: **Isis** (accept **Aset**, **Eset**, or **Ese**)

<RMPSS, MYTH>>

**The Dulong-Petit law approximates the heat capacity of materials in this phase. Silicon dioxide can be an example of the “amorphous” type of this phase, during which (\*)** sublimation can occur. The phase diagram of water has a negative slope between this phase and the liquid phase. For 10 points, name this phase of matter, exemplified by materials such as glass.

Answer: **solid** (accept **crystal**s before “amorphous”)

<SCI, CHEM>>

**In this battle, Joshua Chamberlain ordered a bayonet charge to defend a hill. Richard Ewell assaulted, but failed to take, Culp's Hill on each of the three days of this battle. Cemetery Ridge was the site of (\*)** Pickett's Charge, a failed assault in this battle that represented the high water mark of the Confederate invasion. For 10 points, name this July 1863 battle, the turning point of the Civil War, after which Abraham Lincoln gave a famous address.

Answer: Battle of **Gettysburg**

<HIST, AMER>>

**A character in this work refuses a marriage proposal from St. John [sin-jin], and doubts Alice**

**Fairfax, who blames strange sounds on Grace Poole. Mr. Bocklehurst causes the death of (\*)** Helen

Burns, whom the protagonist meets at Lowood School in this novel. Bertha Mason was the first wife of Edward Rochester, who eventually marries the protagonist of, for 10 points, this novel by Charlotte Brontë.

Answer: **Jane Eyre**

<LIT, BRIT>>

**In the background of this painting, a group of four men wearing red hats are rowing a boat. In this painting, a man plays a trumpet behind two soldiers who are walking away from the viewer. A little girl in white looks directly at the viewer, and a woman in the foreground of this large painting walks a (\*)** monkey on a leash. Painted with uniformly-sized dots of color, rather than brushstrokes is, for 10 points, what pointillist painting by Georges Seurat [zhorzh soo-RAH]?

Answer: A **Sunday Afternoon on the Island of la Grande Jatte** (accept Un **dimanche après-midi à l'Île de la Grande Jatte**; prompt on “Sunday Afternoon” or “(La) Grande Jatte” alone)

<FA, VISUAL>>

**The pair-instability type of this event was observed for the first time in 2006. Cas A and the**

**Crab Nebula are remnants of these energetic events that can occur when a white dwarf exceeds the (\*)** Chandrasekhar limit. During these events, heavy elements can be synthesized when the core of the parent star collapses. For 10 points, name these events, classified as Types 1 and 2, during which stars explode very violently.

Answer: **supernova**s (do not prompt on or accept “nova”)

<SCI, OTHER>>

**Alvaro woos Serafina with the title object in this author's *The Rose Tattoo.* This man wrote *The***

***Night of the Iguana* and a work in which Jim Lawrence breaks the horn of Laura Wingfield’s unicorn. In another of his plays, the protagonist loses Belle Reve [bell rehv], and (\*)** Stanley Kowalski fights with his sister-in-law, Blanche DuBois, in New Orleans. For 10 points, name this American playwright of *The Glass Menagerie* and *A Streetcar Named Desire.*

Answer: Thomas Lanier "Tennessee" **Williams** III

<LIT, AMER>>

**This speech notes that America has given a "bad check," but its speaker refuses to believe that "the bank of justice is bankrupt." This speech hopes that the "table of brotherhood" will join together the sons of slaves and slave owners and that the speaker's (\*)** "four little children" will be judged "by the content of their character." For 10 points, name this speech, given at the March on Washington on August 28, 1963 by Dr. Martin Luther King.

Answer: **I Have A Dream**

<HIST, AMER>>

**Avulsion is causing the Atchafalaya River to gain volume from this river. One bend in this river forms an exclave of Fulton County, Kentucky, and it was said to flow backward during the New Madrid [MAA-drid] earthquake. Its headwaters are at (\*)** Lake Itasca, and it is joined at Cairo [kayroh], Illinois by the Ohio River. New Orleans lies near the end of the 2,300 mile long journey of, for 10 points, what longest river in the United States?

Answer: **Mississippi** River

<GEO, GEO>>

**The Spitzer telescope operates in this range of the light spectrum. This region of light is used in spectroscopy to measure vibrating bonds. William Herschel discovered this non-visible type of light from the sun by measuring its (\*)** heating ability. For 10 points, name this region of electromagnetic radiation used in night vision goggles and thermal imaging that, unlike ultraviolet light, has longer wavelengths than visible light.

Answer: **infrared** light (accept **infrared** radiation)

<SCI, PHYS>>

**In a pair of works by this author, Timaeus describes the origin of the universe and Critias details the history of Atlantis. He wrote of Kallipolis, an ideal city-state where philosopher-kings rule, in a work that seeks to define justice for individuals and the (\*)** city-state. For 10 points, name this Ancient Greek philosopher, a teacher of Aristotle and author of dialogues, like The Republic, which feature his teacher, Socrates.

Answer: **Plato**

<RMPSS, PHIL>>

**In one myth, this figure fell in love with Leuce and turned her into a white poplar tree after her**

**death. Pirithous tried to abduct this god’s wife, and was consequently trapped in a rock for eternity. This god abducted his wife from (\*)** Demeter and forced her to stay with him after she ate pomegranate seeds. For 10 points, name this husband of Persephone, the Greek god of a namesake underworld.

Answer: **Hades** (accept **Pluto** before “Greek” is read)

<RMPSS, MYTH>>

**This man used scotchpak to make his *Silver Clouds* exhibit, and made *Silver Car Crash* as part of his *Death and Disaster* series. This artist did much of his work at The Factory, where he painted a set of fifty images called the (\*)** *Marilyn Diptych* using silkscreen. He created thirty-two paintings with legends like “Chicken” and “Tomato.” For 10 points, name this American Pop artist who painted *Campbell’s Soup Cans*

Answer: Andrew “Andy” **Warhol**(a), Jr

<FA, VISUAL>>

**This country’s Petsamo province was ceded to its eastern neighbor in 1922, but it recaptured much of Karelia during the Continuation War. This country’s Sami people live in its province of Lapland, which was the site of late fighting against the Nazis. Fighters from this country used (\*)** “Molotov cocktails” against Soviet bombings during the Winter War. For 10 points, name this Scandinavian country with capital at Helsinki.

Answer: **Finland** (accept **Suomi**)

<HIST, EURO>>

**This work’s protagonist meets Count Pococurante, an art and book collector who hates art and literature, and he receives a hundred red sheep when he leaves El Dorado. The main character is forced to leave the castle of Baron (\*)** Thunder-ten-Tronckh when he kisses Cunegonde, and Dr. Pangloss believes “all is for the best in this best of all possible worlds” in, for 10 points, this novella by Voltaire.

Answer: **Candide**: or Optimism (accept **Candide**, ou l’optimisme)

<LIT, EURO>>

**Pius X [the tenth] justified this practice with the Gospel of John, in which Jesus breathes on his**

**disciples and tells them to “forgive.” Since Vatican II [“two”], this ritual may be performed while facing a priest. The Act of (\*)** Contrition may be read during this practice, which often ends with an order to pray for forgiveness by reciting a number of Hail Marys. For 10 points, name this Catholic act of admitting one’s sins to a priest.

Answer: **confession** (accept **Sacrament of Penance** and Reconciliation; accept **Sacrament of Reconciliation**; prompt on “penance” or “reconciliation” alone)

<RMPSS, REL>>

**This city is home to the Tsing Ma Bridge, and more than 100,000 people live on its Lantau Island. This city, south of Shenzhen on the Kowloon Peninsula, was ceded to Britain in the Treaty of Nanking. This large city on the Pearl River Delta lies east of (\*)** Macau, a "Special Administrative Region" like this city. For 10 points, name this city, which has existed as “one country with two systems” since it was transferred to Chinese ownership in 1997.

## Answer: Hong Kong

<HIST, WORLD>>

**The question “How many piano tuners are in Chicago?” is one of this man’s namesake “problems.” He names a set of particle statistics with Dirac that contrast with Bose-Einstein statistics, predicted the emission of neutrinos in beta decay, and was the (\*)** first to achieve a nuclear chain reaction at the University of Chicago. For 10 points, name this Italian-American physicist who names a national lab in Batavia, Illinois.

Answer: Enrico **Fermi**

<SCI, PHYS>>

**The low density of this body is not explained by the Condensation Theory of its formation. This**

**body’s small magnetic field may have been generated by collisions, such as the one that created its Sea of Showers impact basin. The Ranger 8 crashed into its (\*)** Sea of Tranquility. The gravity of this body is too weak to hold an atmosphere but large enough to cause ocean tides on Earth. For 10 points, name this only natural satellite of Earth.

Answer: Earth’s **moon** (accept **Luna**)

<SCI, OTHER>>

**In the "Theory of Composition," this poem's author explains why this poem's "Prophet" seems like "a demon that is dreaming" but can only say one word. The speaker asks the title creature to return to “Night’s Plutonian shore,” but it stays on the “pallid bust of (\*)** Pallas” in his room. This poem's speaker laments the loss of “dear Lenore” while the title bird repeats “nevermore” in, for 10 points, what poem by Edgar Allan Poe?

Answer: The **Raven**

<LIT, AMER>>

**The 1638 Portsmouth Compact established a settlement that would become part of this colony. Its founder published The *Bloody Tenet of Persecution* in 1644 and purchased land for this colony from the Narragansett Indians. Anne Hutchinson (\*)** fled religious persecution in Massachusetts to join this colony with the support of Roger Williams, its founder. For 10 points, name this colony in New England with capital Providence.

Answer: **Rhode Island** (and Providence Plantations)

<HIST, AMER>>

**The neurotransmitter GABA [GAB-uh] is a gamma-type of this class of organic molecules, which were the most complex products of the Miller-Urey experiment. The substitution of a polar one of these with valine in hemoglobin causes sickle-cell disease, and these molecules can be linked by disulfide bridges and (\*)** peptide bonds. These molecules are represented by codons and joined together during translation at the ribosome. For 10 points, name this group of 20 building blocks of proteins.

Answer: **amino acid**s (prompt on protein before “valine” is mentioned)

<SCI, BIO>>

**This leader's sister, Arsinoe, was controversially killed on the steps of the Temple of Artemis. This leader's son, Caesarion, lived briefly as the last Pharaoh of Egypt one year after this leader ordered a decisive retreat from (\*)** Octavian's navy at the Battle of Actium with her lover, Marc Antony. For 10 points, name this Egyptian Pharaoh who, shortly after Marc Antony's suicide, legendarily killed herself by snakebite.

Answer: **Cleopatra** VII Philopator

<HIST, OTHER>>

**This man introduced dot notation to indicate derivatives, which are used in a method named for him to recursively find roots of a function. He generalized the binomial theorem to all real exponents. Simultaneously with Gottfried (\*)** Leibniz [LIBE-nits], he invented calculus, whose principles are outlined in his *Principia Mathematica*. For 10 points, name this English mathematician, whose mathematical insights led him to develop his three laws of motion.

Answer: Sir Isaac **Newton**

<SCI, OTHER>>

**This instrument's altissimo register is accessed by overblowing on the fifth harmonic, done by lifting the top left finger. Its lowest register is named for the chalumeau, an older version of this instrument. An unusual glissando on this instrument opens (\*)** Gershwin's *Rhapsody in Blue*. Benny Goodman played, for 10 points, what single reed woodwind whose B-flat version is held and played similarly to the double-reed oboe?

Answer: **clarinet**

<FA, AUDIO>>

**Characters in this novel go to the Malpais reservation in New Mexico, where they meet Linda, whose son remembers her relationship with Popé while watching *Three Weeks in a Helicopter.* This novel opens by describing the Bokanovsky process, and in this work, (\*)** Helmholtz Watson is exiled to the Falkland Islands by Mustapha Mond. John the Savage and Bernard Marx oppose the drug Soma in, for 10 points, what dystopian novel by Aldous Huxley?

## Answer: Brave New World

<LIT, BRIT>>

**In one video, a bad Arnold Schwarzenegger impersonator sings this song set to scenes from *Batman and Robin*. In one parody of this song, "It's in my head, it's in my dreams," is sung by a tormented father. John Travolta called this song's performer (\*)** "Adele Dazeem" at the 2014 Oscars, where it won Best Original Song. Idina Menzel sings that "the cold never bothered me anyway" in, for 10 points, what hit song from Disney's 2013 film *Frozen*?

## Answer: Let It Go

<TRASH, POP CULT>>

**A character in this novel says he is “going to America” before shooting himself, and Lebeziatnikov [leh-bets-yat-nih-koff] reveals the framing of Marmeladov’s daughter. Svidrigailov [svih-drih-”guy”-loff] is shot at by Dounia in this work, which sees Porfiry Petrovich’s mind games and Sonya’s urgings provoke the protagonist to confesses to the murder of the (\*)** pawnbroker Alyona Ivanova and her sister Lizaveta. Raskolnikov appears in, for 10 points, what Fyodor Dostoyevsky novel?

Answer: Crime and Punishment (accept Prestuplenie i nakazanie)

<LIT, EURO>>

**The D1 and D2 Fraunhofer spectral lines form this element’s namesake “doublet.” This metal can be produced via the Castner process or a Downs cell, and its azide is used in the airbags of cars.**

**This element glows bright (\*)** yellow in the flame test, and baking soda is this element’s bicarbonate. For 10 points, name this element which makes up table salt with chloride, has atomic number 11, and has atomic symbol Na.

Answer: **sodium** (accept **Na** before mention)

<SCI, CHEM>>

**Operation Neptune Spear was this event's codename, while the codeword "Geronimo" stood for its main objective. A chance for this event in Kandahar was declined due to civilian danger, according to remarks by Bill Clinton the day before the (\*)** 9-11 attacks. The *USS Carl Vinson* was used to bury the subject of this event at sea. For 10 points, name this 2011 action of Navy SEAL Team Six in Abbottabad, Pakistan against a former leader of al-Qaeda.

Answer: the **killing** (or equivalents) of Osama **bin Laden**

<HIST, WORLD>>

**This author wrote of a “narrow fellow in the grass” and said she was an “inebriate of air” and**

**“Debauchee of Dew” in a poem that begins “I taste a liquor never brewed.” This poet wrote “hope is a thing with feathers” and “I heard a (\*)** fly buzz when I died,” and described a carriage that “held but just ourselves and Immortality.” The “Belle of Amherst” was, for 10 points, this reclusive American poet who wrote “Because I could not stop for Death.”

Answer: Emily Elizabeth **Dickinson**

<LIT, AMER>>

**This war was triggered by the closing of the Straits of Tiran. The *USS Liberty* was hit by friendly fire during this war, which opened with Operation Focus, a surprise, pre-emptive airstrike against the Egyptian (\*)** Air Force. The winner of this war claimed control of Gaza from Egypt, which had mobilized troops in the Sinai Peninsula. For 10 points, name this war in which Israel attacked its neighbors over the course of a week in June, 1967.

Answer: **Six Day War** (or the **Third Arab-Israeli War**)

<HIST, WORLD>>

**When the kinetic energy equals the potential energy in a system, the Lagrangian takes this value. The magnetic force on an electron moving parallel to a magnetic field is equal to this value. This is the amount of spin on the Higgs boson, as well as the amount of (\*)** mass in a photon and the amount of pressure in a perfect vacuum. For 10 points, name this quantity, equal to the velocity of a stationary mass.

Answer: **zero** (accept equivalents like **nothing**)

<SCI, PHYS>>

**At its premier, this work's final movement ended with a girls' choir from St. Paul's School fading out in a nearby room. This suite's composer adapted part of it into music for the hymn "I Vow to Thee, My Country" in 1921. In 2000, Colin Matthews wrote an (\*)** eighth movement for this work, titled Pluto, the Renewer. For 10 points, name this orchestral suite by Gustav Holst, whose seven movements include Mars, the Bringer of War, and Neptune, the Mystic.

Answer: The **Planets**, Op. 32

<FA, AUDIO>>

**This state's western region was a neutral "No Man's Land" which was abandoned by its neighbor to comply with the Missouri Compromise. Unassigned Lands in this state were illegally settled by "boomers" and "sooners," who ignored the official start of the (\*)** Homestead Act. In the 1830s, the Choctaw people were relocated to territory in this modern state via the Trail of Tears. For 10 points, name this former Indian Territory, a U.S. state north of Texas.

Answer: **Oklahoma**

<HIST, AMER>>

**The theory governing these objects was developed by Zermelo and Fraenkel in the early 20th century to avoid a paradox discovered by Bertrand Russell. The size of one of these objects is called its cardinality, and the (\*)** intersection of two of these objects yields anything that is found in both of them. These objects are unordered and do not include any repeated elements. For 10 points, give this mathematical term for a collection of objects.

Answer: **set**

<SCI, OTHER>>

**This property’s constant, Ksp [K-S-P], is the product of the concentrations of ions, though the common ion effect tends to decrease this property for precipitates. This property typically increases as temperature increases for (\*)** solids in liquids, and while silver chloride doesn’t have this property in water, a system of rules explain why most other chlorides do. For 10 points, name this property, the ability of one compound to dissolve in another.

Answer: **solubility** (accept word forms like **soluble**; prompt on “miscibility” or word forms)

<SCI, CHEM>>

**One of these figures was represented by white foxes, turned into a giant spider to frighten a miserly old man, and was called Inari. Another one of these, Susanowo, threw a flayed horse into Amaterasu's [ah-mah-the-rah-soo's] loom. Foxes with multiple tails, called (\*)** kitsune [kee-tsoonay], are this kind of spirit or god in Shinto religion. For 10 points, name these animistic gods of Japan.

Answer: **kami** (accept **fertility gods** or **fertility goddesses** or other equivalents before “flayed horse” is read; prompt on "Shinto deities" or "Japanese deities" before "Shinto" is read)

<RMPSS, REL>>

**One character in this work jokingly dates her love to the day she saw Pemberley estate, and Charlotte Lucas marries Mr. Collins after her friend rejects him. This novel begins when Netherfield is rented by a “single man in (\*)** possession of a good fortune,” and in it, Lydia marries Mr. Wickham and Jane weds Mr. Bingley. Elizabeth Bennet and Mr. Darcy overcome poor first impressions in, for 10 points, what novel by Jane Austen?

## Answer: Pride and Prejudice

<LIT, BRIT>>

**According to legend, one advisor to this ruler built some fake villages along the Dnieper River before a visit to the newly-acquired Crimea region. The Partitions of Poland and the colonization of Alaska took place during the reign of this friend of (\*)** Grigory Potemkin, who came to power after the death of her husband, Peter III. For 10 points, name this 18th century "enlightened despot," an Empress of Russia.

## Answer: Catherine the Great or Catherine II

<HIST, EURO>>

**In this work, the protagonist’s path is blocked by a leopard, a lion, and a she-wolf. That protagonist sees Count Ugolino eating Archbishop Ruggieri, and witnesses the punishment of Paolo and Francesca da Rimini. The narrator passes through a gate inscribed with the words (\*)**

“Abandon all hope, ye who enter here.” For 10 points, identify this first part of *The Divine Comedy,* in which Virgil guides Dante on a tour through hell.

Answer: The **Inferno** (prompt on The **Divine Comedy** or La **Divina commedia** before mention)

<LIT, OTHER>>

**The Darien Scheme was a failed attempt to create this structure. Ferdinand de Lesseps was arrested for bribery related to a plan for this structure, which failed due to landslides and yellow fever. The Hay-Bunau-Varilla Treaty allowed the (\*)** U.S. to build this structure after its country declared independence from Colombia. For 10 points, name this 48-mile long structure, whose three locks allow ships to cut across Central America.

## Answer: Panama Canal

<HIST, WORLD>>

**The T2 type of these were labeled with radioactive sulfur and phosphorus in the Hershey-Chase experiment. Latency results when these entities enter a lysogenic cycle. The first discovered one of these causes tobacco mosaic disease, and AZT is a (\*)** treatment for a widespread retro- one. A protein capsid surrounds these entities, which are unable to reproduce outside a host cell. For 10 points, name these non-living pathogens, such as influenza and HIV.

Answer: **virus**es (accept **bacteriophage** and **phage** before “tobacco” is mentioned)

<SCI, BIO>>

**One character in this novel hears his companions called “mule drivers” and “mud diggers.” The protagonist abandons a “tattered soldier” after a battle and allows an injury from being hit with a rifle to be mistaken for a bullet wound, the title (\*)** mark he longs for. Jim Conklin dies refusing help in, for 10 points, this novel about Union soldier Henry Fleming, a work by Stephen Crane.

Answer: The **Red Badge of Courage**

<LIT, AMER>>

**After insulting the gods, this figure fled to Franang’s Falls disguised as a salmon. This god’s daughter rules a namesake underworld, and earthquakes are the result of this god writhing in pain as he is punished for tricking Hodr into killing Baldr. He is the lover of the giantess (\*)** Angrboda, and is often depicted as a part-giant shapeshifter. For 10 points, name this Norse trickster god.

Answer: **Loki**

<RMPSS, MYTH>>

**This quantity is measured by a hygrometer and is found by relating the partial pressure of water vapor to the vapor pressure of liquid water. This quantity is maximized when the air temperature is equal to the dew point, when condensation will occur. It is often given as a (\*)** percentage in weather reports, where it is combined with temperature to calculate the heat index. For 10 points, give this measure of the level of water vapor in the air.

Answer: relative **humidity**

<SCI, OTHER>>

**This event, a violation of the Boland Amendment, resulted in three felony convictions for Oliver North. It was investigated by the Tower Commission, which criticized the President for his inattentiveness. Its goal was to suppress the (\*)** communist Sandinistas. For 10 points, name this scandal of the Reagan administration in which arms sales to the Middle East funded a Nicaraguan rebel group.

Answer: **Iran-Contra** affair (accept equivalents for "affair," like "incident" or "scandal;" prompt on partial answer)

<HIST, WORLD>>

**This work stands opposite a fresco of the Crucifixion in the Santa Maria delle Grazie. One figure in this work spills a shaker of salt with his right arm while clutching a bag. Thomas raises his index finger on one side of the central man, who (\*)** stretches his arms over the table next to a very feminine Apostle John. For 10 points, name this mural by Leonardo da Vinci depicting the twelve disciples with Jesus at his final meal.

Answer: The Last Supper (accept Il Cenacolo or L’Ultima Cena)

<FA, VISUAL>>

**Cyclin-dependent kinase 4 and 6 are needed in this phase to cross the restriction point, where protein p53 may trigger apoptosis. Most mature nerve cells are permanently arrested in this phase, which directly follows cytokinesis. Its (\*)** S subphase is when DNA is replicated, while its G1 and G2 portions are devoted to cell growth. For 10 points, name this “resting phase” of the cell cycle that must be completed before mitosis can begin.

Answer: **interphase** (accept **G1** before “S subphase” is read)

<SCI, BIO>>

**Raymond Cattell studied this concept with a test measuring 16 primary traits and the "five factors," including agreeableness and extraversion. This concept is measured by self-report inventories like the MMPI test and projective tests like the (\*)** Rorschach inkblot test. For 10 points, what psychological concept, sometimes divided into Type A and Type B, describes a person's patterns of thought and behavior that distinguish them as an individual?

## Answer: personality

<RMPSS, SOC SCI>>

**Laelaps was one of these animals who always caught her prey; she was given to Europa by a love-struck Zeus. After spying on Artemis bathing, Actaeon was eaten by these animals, which he used for hunting. Upon Odysseus’ return to Ithaca, (\*)** Argos, an animal of this type, dropped his ears and wagged his tail when he saw his master. The guard of Hades, Cerberus, is a three-headed one of, for 10 points, what kind of domestic animal?

Answer: **dog**s

<RMPSS, MYTH>>

**The Bipartisan Legal Advisory Group defended this law after President Obama announced, in 2011, that the Justice Department would no longer do so. It passed Congress with a veto-proof majority and was signed by President (\*)** Clinton in 1996, but its third section was ruled unconstitutional by the 2013 case *U.S. v. Windsor*. For 10 points, name this 1996 law which defined marriage as between one man and one woman, often referred to as "DOMA."

Answer: **Defense of Marriage** Act (accept “Law” or “Bill” for “Act;” prompt on “DOMA” before mention)

<HIST, AMER>>

**A barber pole sits in front of a row of businesses in this man’s *Early Sunday Morning.* A small red teapot is on the table between two women at a restaurant in his *Chop Suey*. This artist of (\*)** *Automat* painted an ad for five-cent Phillies cigars in another of his works. In that painting, two men and a woman are being served inside a well-lit, doorless diner. For 10 points, name this American painter of *Nighthawks*.

Answer: Edward **Hopper**

<FA, VISUAL>>

**This nation's port cities include Valparaiso and Antofagasta, the latter of which was invaded for its nitrate and copper resources to begin the War of the Pacific. This country is home to Easter Island and the incredibly dry (\*)** Atacama Desert, which lies in a rain shadow west of the Andes Mountains. This country's border with Argentina runs for 3,300 miles, north to south. For 10 points, name this South American country with capital at Santiago.

Answer: **Chile**

<GEO, GEO>>

**PerkinElmer was criticized for its poor work building a part of this object, which will be replaced in 2018 by one named for James Webb. Spherical aberration caused by its flawed mirror required the crew of STS-61 to install a corrective (\*)** optics system in 1993, greatly refining its images. The American astronomer who predicted the expansion of the universe is the namesake of, for 10 points, what telescope in low Earth orbit?

## Answer: Hubble Space Telescope

<SCI, OTHER>>

**Balthasar delivers a sad message in this work, and Benvolio tries to broker peace between two factions. Before being killed by the “Prince of Cats,” one character in this play describes Queen Mab, and (\*)** Tybalt’s death causes his killer’s exile from Verona. Friar Lawrence marries the title characters, whose joint suicide reconciles the Montague and Capulet families. For 10 points, identify this

Shakespearean tragedy about “a pair of star-cross’d lovers.”

## Answer: Romeo and Juliet

<LIT, BRIT>>

**The last words of one person to die exploring this location were "I am just going outside and may be some time." This region was the subject of the failed Nimrod and Endurance Expeditions, led by Sir Ernest (\*)** Shackleton, as well as the Terra Nova Expedition, which ended with the death of Robert Scott. For 10 points, name this continent on which, in December 1911, Roald Amundsen's team first reached the South Pole.

## Answer: Antarctica

<HIST, WORLD>>

**Sammy Singer’s friend Lew Rabinowitz dies in this author’s novel *Closing Time.* One of this man’s characters asks if there are any prayers without reference to God. Colonel Cathcart and the owner of M+M Enterprises appear in another of his works, in which (\*)** Major Major Major is promoted because of his name and Milo Minderbinder profits from war. For 10 points, name this author who created John Yossarian in his novel *Catch-22*.

Answer: Joseph **Heller**

<LIT, AMER>>

**This type of interaction is responsible for the high crystallinity of nylon, and it explains why hydrofluoric acid has a higher boiling point than hydrochloric acid. These interactions occur between base pairs in DNA. Ice has lower (\*)** density than water due to the behavior of, for 10 points, what type of bonding, a strong dipole-dipole interaction named for element 1 on the Periodic Table?

Answer: **hydrogen bond**s (prompt on “dipole-dipole interaction” before mention; prompt on "bonding" before mention)

<SCI, CHEM>>

**One character in this franchise hums *Cara Mia*, but is only heard to speak by Doug Rattman. Another character dies after attempting to make “Conversion Gel” out of lunar rocks, and is the founder of the Take-A-Wish Foundation, Cave Johnson. In these games, (\*)** GLaDOS taunts Chell with fictional cake as she completes a series of puzzle-platform challenges. For 10 points, name this video game franchise that features namesake orange and blue passageways.

Answer: **Portal** (accept **Portal 2**)

<TRASH, POP CULT>>

**This author of *La Galatea* included “The Lawyer of Glass” and “Dialogue of the Dogs” in *Exemplary Novels.* In another work, the title man’s books are burned after he ventures into the country as a knight-errant on (\*)** Rocinante. That knight fights for the love of Dulcinea in a novel by this author, who wrote about the squire Sancho Panza and a man who tilts at windmills. For 10 points, identify this author of *Don Quixote.*

Answer: Miguel de **Cervantes** Saavedra

<LIT, EURO>>

**In this war, a group of immigrant deserters formed Saint Patrick's Battalion and fought against the United States. This war resulted in a cession of land that was later adjusted by the Gadsden Purchase. Winfield Scott led an amphibious assault on (\*)** Veracruz during this war, which was ended by the Treaty of Guadalupe Hidalgo. For 10 points, name this 1846 to 1848 war against an army led by Santa Anna.

## Answer: Mexican American War

<HIST, AMER>>

**This figure experienced the Seven Sorrows, which include misplacing a child in a temple and hearing the prophecy of Simeon. This religious figure was the daughter of Anne, and she caused**

**Elizabeth’s son to leap for joy in her womb. This woman, called Theotokos [thay-oh-toh-kos] in Greek, was (\*)** conceived immaculately, and she received a prophecy from Gabriel before giving birth in a stable in Bethlehem. For 10 points, name this wife of Joseph, the mother of Jesus.

Answer: (Blessed) Virgin **Mary** (accept Mother **Mary**; prompt on “Holy Mother” or “Holy Virgin;” prompt on “Our Lady of (Seven) Sorrows” or “Mother of Sorrows”)

<RMPSS, REL>>

**Two vectors with a cross product of zero have this relationship, which does not exist in elliptic geometry. Euclid's fifth postulate is named for this property. Two lines with this property are (\*)** equidistant from each other and will have congruent corresponding angles if they are crossed by a transversal. For 10 points, give this term that describes two lines with the same slope, in the same plane, that never intersect.

Answer: **parallel**

<SCI, OTHER>>

**In the duet "Tutti i fior," this operatic title character wishes to "bring spring inside" upon the re-arrival of the *USS Abraham Lincoln*. Earlier in the opera, she sings the aria "Un bel di," waiting for "one beautiful day" when Lieutenant (\*)** Pinkerton will return, but when he returns with an American wife, she commits suicide. For 10 points, name this title character of a Giacomo Puccini opera, whose real name is Cio-Cio San [choh-choh san].

## Answer: Madame Butterfly or Madama Butterfly (accept Cio-Cio San before mention)

<FA, OTHER>>

**This quantity is constant in incompressible fluids. The ratio between this quantity for a sample and for water is called the specific gravity. Pressure in a fluid is equal to *g* times height times this quantity according to Pascal’s law, and (\*)** buoyant force is equal to displaced volume times *g* times this quantity according to Archimedes’ principle. For 10 points, name this quantity, symbolized *ρ* [rho], which is the ratio of mass to volume.

Answer: (mass) **density**

<SCI, PHYS>>

**This person was impersonated after death by Claude des Armoises [Claude day-sahr-mwah]. Pope Callixtus III ordered a trial which found this person innocent 25 years after death. This person accompanied Charles VII to Reims for his coronation. This person was captured at the (\*)** Siege of Compiegne [com-payn], held in trial in Rouen, and convicted of heresy and cross-dressing. For 10 points, name this woman who, after helping end the siege of Orleans, was burned at the stake.

Answer: Saint **Joan of Arc** (accept **Jeanne d’Arc**)

<HIST, EURO>>

**A character in this novel can only be killed by hemp, according to the Parsee Fedallah; that character throws his pipe overboard and nails a gold doubloon to the mast of his ship. An unused coffin once carried by (\*)** Queequeg serves as the narrator’s lifeboat when the *Pequod* sinks in this novel, which begins “Call me Ishmael.” For 10 points, name this Herman Melville novel about Captain

Ahab’s quest for the title white whale.

Answer: **Moby Dick**; or, The Whale

<LIT, AMER>>

**The English Statute of Laborers set a maximum wage in response to deaths caused by this event. Jews were falsely accused of poisoning wells during this event, whose victims are supposedly described by the nursery rhyme (\*)** "Ring Around the Rosie." This event was likely caused by merchant ships transporting flea-infested rats from Asia. For 10 points, name this pandemic that sickened and killed tens of millions of people in Europe in the 14th century.

Answer: bubonic **plague** or **Black Death**

<HIST, OTHER>>

**This author wrote "The Disintegration Machine" and *The Lost World*, which feature the rambunctious Professor Challenger. He created “the most indispensable man in the country,” and “The Woman,” who marries Godfrey Norton. Another of his characters seems to fall to his death off (\*)** Reichenbach Falls with Professor Moriarty; that character lives at 221b Baker Street with John Watson. For 10 points, name the author of *A Study in Scarlet* and *The Hound of the Baskervilles*, who created Sherlock Holmes.

Answer: Sir Arthur Conan **Doyle**

<LIT, BRIT>>

**This author argued that Moses may have been the pharoah Akenhaten in the book *Moses and Monotheism*. He described behaviors as guided by Thanatos, the death drive, as a companion to sexual drive in his *Beyond the Pleasure Principle*. (\*)** Carl Jung opposed this man's theory of the psyche, in which the superego controls one's instincts. For 10 points, name this Austrian psychoanalyst, the author of *The Ego and the Id* and *The Interpretation of Dreams*.

ANSWER: Sigmund **Freud** (accept Sigismund Schlomo **Freud**)

<RMPSS, SOC SCI>>

**This book describes a creature who “launch'd forth, filament, filament, filament out of itself,” and a narrator who “look’d up in perfect silence at the stars.” This collection contains “A Noiseless Patient Spider” and “When I Heard the Learn'd Astronomer” and this work honors (\*)** Lincoln with the poems “When Lilacs Last in the Dooryard Bloomed” and “O Captain! My Captain!” “Song of

Myself” appears in, for 10 points, what poetry collection by Walt Whitman?

## Answer: Leaves of Grass

<LIT, AMER>>

**One of this man’s works is built on a landfill in Boston. In addition to the John F. Kennedy**

**Library, this man designed the Bank of China tower in Hong Kong and built a double-peaked glass “tent” that overlooks Lake Erie in (\*)** Cleveland. The Rock and Roll Hall of Fame was designed by, for 10 points, this Chinese-American architect, who created a glass pyramid at the Louvre [loov].

Answer: I(eoh) M(ing) **Pei**

<FA, OTHER>>

**The Davisson-Germer experiment scattered these entities, proving their wave-particle duality. The charge-to-mass ratio of these leptons were measured in a cathode ray tube by (\*)** J.J. Thomson, and their charge was calculated in the oil drop experiment by Robert Millikan. For 10 points, name this subatomic particle with charge opposite that of a proton, found orbiting the nucleus of the atom.

Answer: **electron**s

<SCI, PHYS>>

**This man was born because his father disguised himself as Gorlois [gorl-wah], and was the son of Igraine. At the Battle of Camlann this man was wounded by his own son and taken to Avalon to recover. That son, Mordred, was the child of (\*)** Morgan le Fay. This legendary man led knights like Sir Gawain and Sir Lancelot after pulling a sword from a stone, and was advised by Merlin. For 10 points, name this mythical king of Camelot.

Answer: King **Arthur** Pendragon

<RMPSS, MYTH>>

**One issue in this case was Dr. John Emerson's purchase of Harriet Robinson in the Wisconsin territory. This case was dismissed because the plaintiff did not have standing to sue; the opinion in this case then ruled that Congress could not ban (\*)** slavery in territories and ruled the Missouri Compromise unconstitutional. For 10 points, name this controversial 1857 Supreme Court case that ruled people of African descent could not be U.S. citizens.

Answer: **Dred Scott** v. (John) Sanford (or Sandford)

<HIST, AMER>>

**The complexometric type of this process is used for solutions of metal ions. PKa [P-K-A] equals pH halfway to the equivalence point on a namesake curve in the acid-base kind of this technique, which often uses indicators like (\*)** phenolphthalein [fee-nol-THAY-leen] to find the endpoint. For 10 points, name this lab technique in which a solution of known concentration is added to a solution of unknown concentration using a buret [byur-ET].

## Answer: titration

<SCI, CHEM>>

**A character in this work covers a boar’s head with her green shawl so her youngest daughter can sleep. Another character is admired by Charles Tansley. Only Augustus Carmichael is allowed**

**to see Lily Briscoe’s paintings in this work. Prue and Andrew die in this novel’s second section (\*)** “Time Passes.” After ten years, Cam, James, and Mr. Ramsay finally take the title voyage in, for 10 points, what novel by Virginia Woolf?

## Answer: To the Lighthouse

<LIT, BRIT>>

**The Casparian strip acts as a screen within the cortex of this structure, and the strangler fig kills trees by growing the adventitious type. Mycorrhizae [my-kuh-RYE-zee] are symbiotic relationships between fungi and these plant organs, which can harbor (\*)** nitrogen-fixing bacteria nodules. The carrot is a tap variety of, for 10 points, what commonly underground plant structures that absorb water and nutrients and support the plant in the ground?

Answer: **root**s

<SCI, BIO>>

**In 1984, Bernard Goetz shot four black teenagers on this city's subway, claiming self-defense. In 1976 and 1977, six murders by the "Son of Sam" terrorized this city. The zero-tolerance for "broken windows" policy used by this city in the (\*)** 1990s corresponds with a drop in the crime rate under mayor Rudolph Giuliani. For 10 points, name this city, whose failed 2013 law banning large soft drinks was supported by former mayor Michael Bloomberg.

Answer: **New York** City (or **NYC**)

<HIST, AMER>>

**This work's title character loses his wife Creusa while carrying his son and father from their burning city. The Cumaean Sibyl gives a vision in the underworld in Book Six of this work, whose first book opens "I sing of arms and the man." The title (\*)** Trojan prince courts the Carthaginian princess Dido before settling in Italy in, for 10 points, what Latin epic poem about the founding of Rome, written by Virgil?

Answer: The **Aeneid**

<LIT, OTHER>>

**The "Ballroom of Death" and the "Popcorn Field" are treacherous areas on the path through this mountain's Khumbu Icefall. The South Col is a pass from Lhotse to this mountain within the "death zone" over (\*)** 8,000 meters. An April 2014 avalanche on this mountain killed sixteen Sherpa guides. For 10 points, name this peak in the Himalayas first summited by Tenzing Norgay and Sir Edmund Hillary, the tallest mountain in the world.

Answer: Mount **Everest**

<GEO, GEO>>

**Like Eid al-Adha this holiday can include slaughtering one goat and sending another “to Azazel” as well as kapparot, which involves swinging a chicken over one’s head. More common practices during this holiday include the acrostic prayer Ashamnu and the reading of the Book of**

**(\*)** Jonah. The closing prayer is the Ne’ilah, and this holiday begins with Kol Nidre. For 10 points, identify this fast day that comes nine days after Rosh Hashanah, the Jewish Day of Atonement.

Answer: **Yom Kippur**

<RMPSS, REL>>

**These events can be caused by rear flank downdrafts reaching a mesocyclone within a supercell. As rain wraps around the mesocyclone, it creates a "hook echo" pattern on Doppler radar; that is one criterion for the National Weather Service to issue a (\*)** "Warning" that one of these events is imminent. The Fujita scales measure the impact of, for 10 points, what funnel-shaped columns of air whose debris clouds can reach the ground?

Answer: **tornado** (prompt on twister or other colloquial names, but do not prompt on cyclone)

<SCI, OTHER>>

**This empire crumbled after the Battle of Nedao. These people, who originated east of the Volga in Scythia, also lost to Flavius Aetius at the 451 Battle of Chalons [sha-LONE]. One ruler of these people came to power after possibly murdering his brother (\*)** Bleda; that leader was known as the “Scourge of God” for his cruelty. For 10 points, name these nomadic people who frequently battled the Romans and were led by Atilla.

Answer: **Huns** (or the **Hunnic** Empire)

<HIST, WORLD>>

**Just before the final pas de deux of *The Nutcracker*, the flowers perform this type of dance. One of Chopin's works in this genre was labeled "grand" and "brilliant," while another was dedicated to Countess Delfina Potocka and inspired by a dog (\*)** chasing its tail. Johann Strauss was considered the "King" of, for 10 points, what triple-time style of music, exemplified by "On the Beautiful Blue Danube." and Chopin's "Minute?"

Answer: **waltz**

<FA, AUDIO>>

**For a set with *n* elements, one type of this quantity is equal to *n* times the reciprocal of the sum of the reciprocals of each number in the set. Another type of this quantity takes the *n*th root of the product of *n* numbers and is always less than the aforementioned** **harmonic type. A (\*)** third type of this quantity is equal to the sum of *n* numbers divided by *n*. For 10 points, give this term, whose arithmetic type is often called an average.

Answer: **mean** (accept harmonic, geometric, or arithmetic mean; prompt on average before mentioned)

<SCI, OTHER>>

**This author wrote of a tragic love affair in *The Elegy of Lady Fiammetta,* and he described 106 females in *On Famous Women.* In another work, Dioneo is exempt from following the orders of the King or Queen each day. This man wrote a story told by Fiammetta, which relates how Federigo cooked his prized falcon. (\*)** Ten people from Florence gather to escape the plague in a work by, for 10 points, this author of the *Decameron.*

Answer: Giovanni **Boccaccio**

<LIT, EURO>>

**Medea sent this man to kill the Marathonian Bull in an attempt to get him killed. His home city kept his legendary ship in repair by replacing its rotten wood; that ship flew black sails on its return from (\*)** Crete, causing this man's father to drown himself. While at Crete, this hero used Ariadne's advice and thread to navigate the Labyrinth. For 10 points, name this mythical Greek founder of Athens, the slayer of the Minotaur.

Answer: **Theseus**

<RMPSS, MYTH>>

**This event took place on King Street and was ended by Thomas Hutchinson's clearing of the crowd. An inaccurate engraving depicts the perpetrators of this event standing in an organized line; that engraving by (\*)** Paul Revere also depicts the first victim of this event as a white man. Crispus Attucks was one of five people killed by British soldiers in, for 10 points, what March 5, 1770 incident in Massachusetts?

Answer: **Boston Massacre**

<HIST, AMER>>

**Men who undergo the process of Amrit Sanchar are initiated into this religion and are commanded to wear an iron bracelet and wooden comb. This religion's central text, the Adi Granth, is considered its final (\*)** Guru. Members of this religion, founded by Guru Nanak, practice a form of strict non-violence known as ahimsa [ah-heem-sah] and wear the five K's, including kesh, or uncut hair. For 10 points, name this religion prominent in the Punjab state of India.

Answer: **Sikh**ism

<RMPSS, REL>>

**This city is home to the City Lights Bookstore and a music festival on its Treasure Island. Its Telegraph Hill is just south of Fisherman's Wharf. Its Haight-Ashbury district was a center of hippie culture in the (\*)** 1960's, and its bay was once home to a federal prison on Alcatraz Island. For 10 points, name this California city across the bay from Oakland, the home of cable cars and the Golden Gate Bridge.

Answer: **San Francisco**

<GEO, GEO>>

**A Lucas cell can be used to detect one element in this group that causes lung cancer. Ununoctium is the newest member of this group. Shorthand electron configurations features abbreviations for elements in this group in brackets. Each one of these elements is (\*)** monatomic with a full valence shell. For 10 points, name this group of unreactive elements on the far right of the periodic table, whose members include xenon, radon, and helium.

Answer: **noble gas**es (accept **Group 18** of the Periodic Table before mentioned)

<SCI, CHEM>>

**This work’s creator had earlier painted the title phenomenon *Over the Rhone*. Blue hills rise in the background of this painting, which was created in an asylum outside the French village of Saint Rémy [sahn reh-MEE]. A (\*)** cypress tree dominates this painting’s foreground, in front of a village illuminated by a swirling crescent moon. For 10 points, name this depiction of an evening sky created by Vincent van Gogh.

Answer: The **Starry Night** (accept De **sterrennacht** [deh SHTEH-reh-nahkt])

<FA, VISUAL>>

**Ancient examples of these structures include one named for the god Izanagi and another named Farallon which gave rise to a modern one called Juan de Fuca. If these structures meet at a convergent boundary, (\*)** subduction can occur, and they grow at mid-ocean ridges in the process of seafloor spreading, which causes continental drift. The lithosphere consists of, for 10 points, what moving sections of Earth’s crust?

Answer: **tectonic plates** (prompt on “plates”)

<SCI, OTHER>>

**In a work by this author, Pontiac dealer Dwayne Hoover is obsessed with a science fiction author. One of his novels takes place in San Lorenzo, the home of Bokononism. A ballerina is shot by Diana (\*)** Moon Glampers in a short story by this author of *Breakfast* *of Champions* and *Cat's Cradle*, who created the fictional writer Kilgore Trout. For 10 points, name this author, who created Billy Pilgrim for his novel *Slaughterhouse-Five*.

Answer: Kurt **Vonnegut**, Jr.

<LIT, AMER>>

**This nation's Order #270 required the killing of deserting soldiers and the arrest of their families. This nation's secret police, led by Lavrentiy Beria, committed and covered up the Katyn massacre of Polish citizens. This country was the target of (\*)** Operation Barbarossa, which saw German forces siege cities like Smolensk and Leningrad. For 10 points, name this country led during World War II by Joseph Stalin.

Answer The **Soviet Union** (accept **USSR**, **Union of Soviet Socialist Republics**, or **CCCP**; do not accept Russia)

<HIST, EURO>>

**The formula for Euclidean distance between two points is derived from this theorem. James Garfield drew a trapezoid to begin his proof of this theorem. Sets of positive integers that satisfy this formula are known as namesake (\*)** "triples," including 3, 4, and 5. For 10 points, name this geometric theorem, named for an ancient Greek mathematician, that compares the sides of a right triangle, often written as a squared plus b squared equals c squared.

Answer: **Pythagorean** theorem (prompt on "a squared plus b squared equals c squared" before mentioned)

<SCI, OTHER>>

**This author wrote about Dr. Edwin Ransom’s encounters with life on Mars and Venus in *Out of the Silent Planet* and *Perelandra.* This author of *The Screwtape Letters* wrote about Digory and Polly, who pave the way for the (\*)** Pevensie children, and about Prince Caspian and the lion Aslan. For 10 points, identify this author of *The Chronicles of Narnia,* including *The Lion, the Witch, and the Wardrobe.*

Answer: **C**(live) S(taples) **Lewis** (prompt on “Lewis” alone)

<LIT, BRIT>>

**The *Final Fantasy* game of this number introduced the gunblade-wielding Squall. In**

***Hearthstone*, Ragnaros' fireball effect deals this much damage. Ignoring "Minus World," there are this many worlds in the original *Super Mario Bros.* game. The (\*)** "Luigi Death Stare" appears in the *Mario Kart* game of this number, released in 2014. For 10 points, give this Pokedex number of Wartortle and maximum number of lines cleared by two Tetris "I" blocks.

Answer: **8** (accept **Final Fantasy VIII** or **Mario Kart 8**)

<TRASH, POP CULT>>

**The case *Furman v. Georgia* dealt with inequitable use of this practice, and *Atkins v. Virginia* ruled that mentally handicapped people cannot undergo this procedure. In 2011, Hospira stopped producing sodium thiopental, the first of a (\*)** three-drug process often used in this procedure. For 10 points, name this form of punishment usually performed in the United States by lethal injection on inmates serving on "Death Row."

Answer: **capital punishment** (or the **death penalty**, **execution**, or equivalents; prompt on lethal injection before mentioned)

<HIST, AMER>>

**Vasopressin inserts aquaporins into sections of this organ to regulate blood pressure. A concentration gradient is created by reabsorbing ions through this organ’s Loop of Henle. The Bowman’s capsule encloses this organ’s filtering portion, the glomerulus, at the beginning of its (\*)** functional unit, called a nephron. Dialysis is used after this organ fails. For 10 points, name this beanshaped organ that filters blood and concentrates urine.

Answer: **kidney**

<SCI, BIO>>

**Until 2006, these people were equipped with triple-barreled guns for defense against wolves. Three of these people died after leaving Salyut 1 when their capsule decompressed; another died in a training flight seven years after he flew on (\*)** Vostok 1. The station Mir was run by three of these people. Valentina Tereshkova and Yuri Gagarin were, for 10 points, what type of explorer who flies on Soyuz rockets for the USSR or, now, Russia?

Answer: **cosmonaut**s (accept **Russian/Soviet astronauts** before mentioned; prompt on astronaut alone)

<HIST, EURO>>

**One character in this work is called *salao*, but fondly remembers his first fishing trip with a five-year-old helper. That protagonist dreams of lions on a beach, and he remains confident in the Yankees and the “great DiMaggio.” (\*)** Manolin is forbidden to go with the title character in this novella, who goes for 84 days without a fish before finally catching a marlin, only to have it get eaten by sharks. For 10 points, identify this novella about Santiago, a work by Ernest Hemingway.

Answer: The **Old Man and the Sea**

<LIT, AMER>>

**In the Hall effect, this quantity is transverse to the current. Kirchoff’s loop rule states that the sum of this quantity in a loop is 0. Potential energy is equal to charge times this quantity, and across branches of a parallel circuit, this quantity is equal. By (\*)** Ohm’s law, it equals current times resistance. For 10 points, name this quantity, which equals 1.5 for AAA batteries and is measured in namesake volts.

Answer: **voltage** difference (accept electric **potential** difference, accept **electromotive force**, accept **emf**, do not accept “electric potential energy”)

<SCI, PHYS>>

**Mily Balakirev convinced this composer to re-work the "love theme" of one of his**

**Shakespearean tone poems, an “Overture-Fantasy” on *Romeo and Juliet*. He used *La Marseillaise* to represent Napoleon's army as its invasion of (\*)** Russia failed under cannonfire, represented by bass drum or an actual cannon. For 10 points, name this Romantic Russian composer of six symphonies, including the *Pathetique Symphony*, and the *1812 Overture*.

Answer: Peter Ilyich **Tchaikovsky** (or Pyotr Ilyich **Tchaikovsky**)

<FA, AUDIO>>

T**he descamisados gathered outside this country’s Casa Rosada to support one of its leaders. Thousands of people were “disappeared” in this country’s Dirty War, which ended after its military was ousted from power following their invasion of the Malvinas and ensuing loss to (\*)** Great Britain in the Falkland War. For 10 points, name this South American country, whose president Juan Peron and wife Eva, known as Evita, ruled from its capital of Buenos Aires.

Answer: Republica **Argentina** (accept **Argentina Republic**)

<HIST, WORLD>>

**One aria in this opera declares "dream away, yes, dream in combat / that a dark eye is watching you, / and that love awaits you!" This opera's title character enters with an aria noting that "love is a rebellious bird.” In this work, (\*)** Don Jose kills the title cigarette factory worker when she chooses the love of Escamillo [ess-kah-MEE-yoh], a *Toreador*. For 10 points, name this opera about the title gypsy girl, composed by Georges Bizet [bee-ZAY].

Answer: **Carmen**

<FA, OTHER>>

**The Kirkwood gaps are predictably empty sub-regions of this region of space, to which the Dawn spacecraft traveled to study Vesta in 2011. The largest body in this area was classified as a dwarf planet in 2006; that body, (\*)** Ceres, is roughly 3 astronomical units from the Sun and is the nearest dwarf planet to Earth. The inner and outer solar systems are separated by, for 10 points, what region of small rocky bodies found between Mars and Jupiter?

Answer: **asteroid belt** (be lenient and prompt on solar system, Milky Way, universe, or similar regions of space that encompass the asteroid belt before “Dawn spacecraft” is mentioned)

<SCI, OTHER>>

**Two of this scientist’s research subjects were the polio-stricken Mr. McGregor and David Graybeard. Important discoveries by this anthropologist was that her subjects ate meat, even hunting colobus monkeys, and used tools, such as using straws to pick up (\*)** termites to eat. Goliath was the alpha male in her community at Gombe Stream National Park. For ten points, name this woman who spent over four decades in Tanzania studying chimpanzees.

Answer: Jane Morris **Goodall**

<RMPSS, SOC SCI>>

**A large force of soldiers using this weapon devastated Charles d'Albret's cavalry in a battle on St. Crispin's Day. This weapon, most commonly made of yew, does not recurve and reaches from the ground to the height of its user. It was most successfully used by (\*)** English archers against the French at the Battles of Crecy and Agincourt during the Hundred Years' War. For 10 points, name this specific type of arrow-firing weapon.

Answer: **longbow** (prompt on “bow;” accept additional mention of "arrows," but do not prompt or accept "arrows" alone)

<HIST, EURO>>

**In this work, Heck Tate orders the shooting of Tim Johnson, and the protagonist discusses**

**entailment to calm down Walter Cunningham’s father. This novel’s narrator frightens Calpurnia by sitting in a balcony with (\*)** Dill to watch her father defend Tom Robinson against the Ewells. Atticus Finch appears in, for 10 points, what novel about Jem and Scout, written by Harper Lee?

Answer: **To Kill a Mockingbird**

<LIT, AMER>>

**This force can decrease with increasing velocity in an effect named for Stribeck, and it is**

**described by Amonton’s laws. Magnetic levitation avoids the “rolling” type of this force typically experienced by cars. The (\*)** coefficient for this force, symbolized *μ* [mew], relates the magnitude of this force to the normal force. For 10 points, name this force, whose static and kinetic types arise from resistance to motion.

Answer: **friction**

<SCI, PHYS>>

**In one work by this author, the title character and his father Rashid travel to the Valley of K**

**and encounter a water genie named Iff. This man called Indira Gandhi “the Widow” in a work that features characters such as the Brass Monkey, Shiva, and a boy with an enormous nose, (\*)** Saleem Sinai. He received a fatwa for his novel *The Satanic Verses*. For 10 points, name this Indian-English author of *Midnight’s Children*. Answer: Sir (Ahmed) Salman **Rushdie**

<LIT, OTHER>>

**This god’s mother was often depicted as either a hawk or a woman with falcon’s wings. This son of Nephthys is assisted by the crocodile-headed Ammit in his most famous task. This “Guardian of the Scales” weighs humans’ (\*)** hearts against the feather of Ma’at to determine passage to the afterlife. He is often depicted with the head of a jackal. For 10 points, name this Egyptian god of the afterlife and mummification.

Answer: **Anubis**

<RMPSS, MYTH>>

**This state's MLS team plays in the former Multnomah Stadium. Its flagship state university is home to the legendary track-and-field venue Hayward Field and is supported by Phil Knight, the co-founder of Nike. This state's NBA team was led by Bill Walton to a 1977 title and is currently led by (\*)** Damian Lillard and LaMarcus Aldridge. College football’s Ducks play in, for 10 points, what Pacific Northwest state home to the Timbers and Trail Blazers, based in Portland?

Answer: **Oregon** (accept University of **Oregon**)

<HIST, AMER>>

T**he Allee effect explains why endangered species may never reach this quantity, which can be estimated for the Earth using ecological footprints. This quantity forms a positive horizontal asymptote on logistic (\*)** growth graphs; Anton van Leeuwenhoek [LAY-von-hook] estimated it to be 13.4 billion for humans. For 10 points, give the term for the maximum population size an environment can support, often symbolized *K*.

Answer: **carrying capacity** (accept ***K*** before mention; prompt on "capacity;" prompt on answers describing "maximum population size")

<SCI, BIO>>

**This man designed a curving building known as the Dancing House, and he was sued by MIT**

**after flaws were discovered in his Ray and Maria Stata Center. He designed Chicago’s Pritzker Pavilion, and this architect used wildly (\*)** curved metal sheets in the designs for the Guggenheim Bilbao and the Walt Disney Concert Hall. For 10 points, name this Canadian architect.

Answer: Frank Owen **Gehry** [“gary”]

<FA, OTHER>>

**South Padre Island lies just north of the mouth of this river near the city of Matamoros. This river meanders through, and inspires the name of, Big Bend National Park. Cities on it include Brownsville, Laredo, and (\*)** El Paso, the last of which lies across this river from Ciudad Juarez. For 10 points, name this river, also known as the Rio Bravo, that forms the border between Texas and Mexico and whose name is Spanish for "Big River."

Answer: **Rio Grande** (accept **Rio Bravo** before mentioned)

<GEO, GEO>>

**The Farey type of these objects include only proper, reduced fractions. These objects are often described as functions with domains restricted to the natural numbers. When their terms are combined by addition, they are called (\*)** series, and they are called “convergent” if their terms approach a limiting value. One of these that begins 0, 1, 1, 2, 3, 5, 8, 13 is named for Fibonacci. For 10 points, give this mathematical term for an ordered list of numbers.

Answer: **sequence**s (prompt on “series” before it is read)

<SCI, OTHER>>

**In one scene of this work, the narrator recounts a grand battle between red and black ants. This work describes the sharpening of an axe in the chapter “Economy,” and near the end it discusses those who hear “a different drummer” in the pursuit of simplicity and (\*)** self-sufficiency. The narrator spends two years on Ralph Waldo Emerson’s land after going into the woods to “live deliberately” in, for 10 points, what Henry David Thoreau work set at a title pond?

Answer: **Walden;** or, Life in the Woods

<LIT, AMER>>

**Temporary or limited versions of these buildings are known as musalla. Their qibla wall is indicated by a semi-circular mihrab. These buildings do not have icons or statues, though blue tiles decorate a famous one of these in Istanbul, which has six tall (\*)** minarets. The Kaaba [kah-ah-bah] is found in the world's largest and oldest one of these places, the Masjid al-Haram in Mecca. For 10 points, name these places of Islamic worship.

Answer: **mosque** (accept **masjid** before it is read; accept **Blue Mosque** or **Sultan Ahmed Mosque**)

<FA, OTHER>>

**After the Johnstown Flood, this man rebuilt the city's library. He advocated large scale philanthropy to fight wealth inequality in "The Gospel of Wealth;" this industrialist made his fortune from a company purchased in 1901 by (\*)** J.P. Morgan. For 10 points, name this ScottishAmerican founder of U.S. Steel, whose charity work included building numerous museums and libraries, as well as a namesake concert venue in New York City.

Answer; Andrew **Carnegie**

<HIST, AMER>>

**Allred and Rochow related effective nuclear charge and this quantity. This quantity equals the**

**mean of the electron affinity and first ionization energy by Mulliken’s definition. When molecules have atoms with differences in this quantity, they are deemed (\*)** polar. Fluorine has the highest value for this quantity on the Pauling scale. For 10 points, name this quantity which measures an atom’s likeliness to attract electrons.

Answer: **electronegativity**

<SCI, CHEM>>

**This author wrote about Peter, Martin, and Jack each inheriting a coat in *Tale of a Tub*, and he satirically suggested that starving Irish children should be sold as food. This man described a conflict over whether eggs should be (\*)** broken on the big or little end in another work, in which the title doctor is tiny in the land of Brobdingnag and a giant in Lilliput. For 10 points, identify this author of

*A Modest Proposal* and *Gulliver’s Travels.*

Answer: Jonathan **Swift**

<LIT, BRIT>>

**This man fought an indecisive duel with John Randolph and advocated for the War of 1812 as a War Hawk. His economic policies, which focused on high tariffs and the advancement of infrastructure, was known as the (\*)** “American System”. As Speaker of the House, he used his influence to get John Quincy Adams elected as President in the Corrupt Bargain. For 10 points, name this “Great Compromiser.”

Answer: Henry **Clay**

<HIST, AMER>>

**This phenomenon is described by the code GR in the METAR system. The magnitude of this phenomenon can be predicted with Vertical Integrated Liquid Density, which measures both the moisture content of a cloud and the strength of its updrafts. This phenomenon is caused when (\*)** water droplets are blown upward, where cold air freezes them, before falling to the ground. For 10 points, name this type of precipitation consisting of balls of ice.

Answer: **hail**

<SCI, OTHER>>

**This was the site of the mural "My God, Help Me to Survive This Deadly Love," a picture of Leonid Brezhnev and Erich Honecker kissing. Peter Fechter died in a "death-strip" at this structure, which included Checkpoint (\*)** Charlie. It was shut down on November 9th and gradually torn down over the rest of 1989. For 10 points, name this barrier between West and East halves of a German city, whose fall symbolized the end of European Communism.

## Answer: Berlin Wall

<HIST, EURO>>

**The Epitaphios [eh-pih-tah-fee-ohs] is used during the week leading up to this holiday, and the Harrowing of Hell is celebrated on the day before this holiday. The Orthodox Church precedes this holiday with forty days of fasting. The week leading up to this (\*)** moveable feast celebrates the washing of feet on Maundy Thursday, which occurs near the end of Lent. For 10 points, name this springtime Christian holiday that celebrates the resurrection of Jesus.

Answer: **Easter** Sunday (accept **Pasch** or **Pascha**)

<RMPSS, REL>>

**This artist painted his sister Sophie surrounded by grieving family members in *Death in the Sickroom*, one of his *Frieze of Life* paintings. The eruption of Krakatoa may have inspired the red sky in this artist’s most famous work, which overlooks a (\*)** harbor and focuses on a bald, twisted figure that holds its hands to its face and performs the title action. For 10 points, name this Norwegian artist who painted *The Scream*.

Answer: Edvard **Munch** [moonk]

<FA, VISUAL>>

**Competing populations of species in this phylum are used to measure climate change in Antarctica’s dry valleys. The fungus *Arthrobotrys* [ar-throw-BAH-tris] grows nets to catch soildwelling members of this phylum, which also includes the model organism *C. elegans* and the parasite that causes (\*)** heartworm infection in pets. For 10 points, name this phylum, whose members have external cuticles and cylindrical bodies and which is commonly known as roundworms.

Answer: **Nematoda** (accept **nematode**s, accept **roundworm**s before mentioned)

<SCI, BIO>>

**When one of these literary devices is ruined, the Manager cries "I've lost a whole day over these people!" The Rude Mechanicals create one of these called *Pyramus and Thisbe* for Theseus and Hippolyta's wedding in *A* (\*)** *Midsummer Night's Dream*. Another of these, "The Murder of Gonzago," is "the thing" that exposes the murderer of King Hamlet. For 10 points, name this theatrical device in which a work is performed as part of the action of another drama.

Answer: **play** with**in a play** (accept any description of characters in a play putting on a play; prompt on play; prompt on frame story)

<LIT, BRIT>>

**This group’s size in Indiana shrank after the rape and murder trial of its leader D.C.**

**Stephenson. Catholics were admitted into this group in the 1970s under the leadership of David**

**Duke. Members of this group committed the Greensboro massacre against the Communist**

**Workers’ Party and (\*)** bombed the 16th Street Baptist Church in Birmingham. For 10 points, name this American hate group known for burning crosses and wearing white robes.

Answer: **K**u **K**lux **K**lan

<HIST, AMER>>

**This function gives the y-coordinate of a point rotated from standard position along the unit circle. This odd function, which passes through the origin and has a period of two pi, is the reciprocal of (\*)** cosecant. For an acute angle in a right triangle, it is the ratio of the opposite side to the hypotenuse. For 10 points, name this trigonometric function, which gives the tangent function when divided by cosine.

Answer: **sine**

<SCI, OTHER>>

**This nation's official language is Amharic, though Oromo is spoken by more of its people. The ancient capital of the Kingdom of Axum is in this modern-day country, which became the most populous landlocked country in the world in 1993 when (\*)** Eritrea declared independence from it. Djibouti lies between this country and the Gulf of Aden on the Arabian Sea. For 10 points, name this country on the Horn of Africa with capital at Addis Ababa.

Answer: **Ethiopia**

<HIST, WORLD>>

**A schoolhouse in this work was designed so a thief could easily get in, but not out, though this proves ineffective against Abraham Van Brunt. Katrina Van Tassel marries Brom Bones after a schoolteacher disappears in this story, which was collected in *The* (\*)** *Sketch Book of Geoffrey Crayon.* Ichabod Crane flees the Headless Horseman in, for 10 points, what story by Washington Irving?

## Answer: The Legend of Sleepy Hollow

<LIT, AMER>>

**Pliny the Elder wrote 120 historical remarks on this substance, noting how it names a reward bestowed upon winning soldiers, giving us our modern word "salary." A 1930 march to Dandi that protested a British (\*)** tax on this substance was led by Mahatma Gandhi, who produced this substance illegally by boiling off seawater. For 10 points, name this commonly iodized food preservative, found with pepper on Western table settings.

Answer: (table, rock, or sea) **salt** (accept sodium chloride before mentioned)

<HIST, WORLD>>

**Aldehydes can be reduced to primary types of these compounds. This organic group can be created using hydroboration and oxidation. These compounds have a carbon bonded to a hydroxyl group; that is, to an (\*)** oxygen bonded to a hydrogen. Yeast can ferment sugar into molecules of this type like ethanol and methanol. For 10 points, name this compound found in “wood” and “rubbing” varieties.

Answer: **alcohol**

<SCI, CHEM>>

**This agreement is made, explicitly or implicitly, to escape the state of nature, according to John Locke. Locke argued that, if this concept is broken, people have the right to form a new government. This two-word term describes the (\*)** agreement between individuals and their rulers to give up some freedom in exchange for the community's protection of all other rights. For 10 points, give this term which titles a work by Jean-Jacques Rousseau.

## Answer: social contract

<RMPSS, PHIL>>

**In one work by this author, Herbert Pocket teaches the protagonist to be a gentleman, while in another work, Salem House-educated James Steerforth runs off with Little Em’ly. After Dora Spenlow dies in one of his novels, her widower marries (\*)** Agnes Wickfield, and this author wrote about Estella and the jilted Miss Havisham. The creator of Uriah Heep and Pip is, for 10 points, what author of *David Copperfield* and *Great Expectations*?

Answer: Charles John Huffam **Dickens**

<LIT, BRIT>>

**In this movie, communism was “just a red herring,” and Tim Curry counts "one plus two plus two plus one" to conclude that a loaded gun is empty. The six primary characters are being blackmailed, and so all have motive to use the weapons provided by "Mr. Boddy," including a rope and a (\*)** candlestick. For 10 points, name this movie, based on and named for a board game, which ends with Mr. Green killing the real Mr. Boddy in the hall with the revolver.

Answer: **Clue** (do not accept Cluedo)

<TRASH, POP CULT>>

**Rhoecus and Hylaeus were two of these creatures killed by Atalanta, and another, Eurytion, demanded to marry Dexamenus’s daughter. This race was descended from Ixion and Nephele, and they warred with the Lapiths. One of these was killed by Heracles and was named (\*)** Nessus, and another was a renowned teacher named Chiron. For 10 points, identify this race of half-man half-horse creatures from Greek myth.

Answer: **centaur**

<RMPSS, MYTH>>

**This author wrote about the *Abraham Lincoln* and her crew members Conseil, Ned Land, and Pierre Arronax. In one work by this man, Phileas Fogg and (\*)** Passepartout [pass-par-too] win a bet by completing the title action. Another of his novels centers on the submarine *Nautilus* and Captain Nemo*.* For 10 points, identify this author of *Around the World in 80 Days* and *20,000 Leagues Under the Sea.*

Answer: Jules Gabriel **Verne**

<LIT, BRIT>>

**Victorious soldiers in this war, worried about unfunded pensions, tried to organize the**

**Newburgh Conspiracy. The Conway Cabal was a short-lived attempt to replace the winning leader.**

**During this war, John André was hanged for his role in an attempted (\*)** betrayal of the fort at West Point, a plan organized by Benedict Arnold. For 10 points, name this war, which ended when Lord Cornwallis surrendered at Yorktown to George Washington.

## Answer: American Revolutionary War (or Revolutionary War)

<HIST, AMER>>

**One performer on this instrument used three measures of 2, 2, 2, 3, then a measure of 3, 3, 3, to open his "Blue Rondo a la Turk." This instrument, played by the composer of "Take Five," Dave Brubeck, was also played by the composer of "Mood Indigo," (\*)** Duke Ellington. For 10 points, name this musical instrument that combines with bass, guitar, and drums to form the jazz rhythm section and whose keyboard has 88 keys.

Answer: (jazz) **piano**

<FA, AUDIO>>

**When this quantity is known about the center of mass, the parallel axis theorem gives this quantity for different axes. This quantity for a solid sphere has a coefficient of two-fifths. It is equal to torque over angular acceleration, and for a point mass, it is equal to mass times the square of the (\*)** distance from the axis of rotation. For 10 points, name this rotational analogue of mass that indicates an object’s resistance to rotational acceleration.

Answer: **moment of inertia** (prompt on “I;” do not prompt or accept "inertia")

<SCI, PHYS>>

**A mutation in this organelle’s glycosylation pathway results in I-cell [eye-cell] disease. This organelle attaches mannose-6-phosphate at its *cis* face to direct proteins to the lysosome and prepares antibodies in B-cells for release into the bloodstream. This organelle consists of (\*)** flattened stacks called cisternae [si-STUR-nee]. For 10 points, name this organelle that receives molecules from the ER and modifies them for secretion out of the cell, named for an Italian scientist.

Answer: **Golgi** apparatus/body/complex

<SCI, BIO>>

**This organization's viral video, set to a somber rendition of "Everything is Awesome" and showing an Arctic landscape flooding with oil, convinced Lego to end a partnership with Shell. In 1985, the French bombed this organization's ship, the (\*)** *Rainbow Warrior*, to prevent it from protesting nuclear testing. For 10 points, name this global environmental activist organization, a prominent opponent of nuclear energy with a colorful name.

## Answer: Greenpeace

<TRASH, POP CULT>>

**This organization's Project MKUltra investigated human mind control. In 2006, it was admitted that this organization operated "black sites" in Eastern Europe. This organization funded the Nicaraguan Contras and trained the rebels who landed at the (\*)** Bay of Pigs, one of many of its attempts to remove Fidel Castro from power. John Brennan currently leads, for 10 points, what governmental spy agency that deals in foreign espionage?

Answer: **C**entral **I**ntelligence **A**gency

<HIST, AMER>>

**The puranas recount the churning of one of these things made out of milk which represents an awakening. Jorgumandr [YORE-mun-gahn-dur], the Midgardian Serpent, was thrown into one of**

**these places by Odin. Izanagi dipped his spear into one of these locations to create Japan’s islands. At the end of *The Republic* the city of (\*)** Atlantis falls into one of these geographical features. For 10 points, name these domains which are ruled by the likes of Neptune.

Answer: **oceans** (Accept obvious equivalents like **sea**)

<RMPSS, MYTH>>

**In one novel by this author, the death of Juvenal Urbino allows Florentino Ariza to re-profess his love for Fermina Daza. This author's short story "A Very Old Man With Enormous Wings" is a landmark in magical realism, as is his novel about the city of Macondo, founded by José Arcadio (\*)** Buendia. For 10 points, name this Nobel Prize-winning Colombian author of *Love in the Time of Cholera* and *One Hundred Years of Solitude*, who died in April 2014.

Answer: Gabriel **Garcia Marquez** (prompt on partial surname)

<LIT, OTHER>>

**One concept describing this two-dimensional shape involves placing one focal point at infinity. This shape is formed by intersecting a plane with a cone parallel to its slant height. This conic section with eccentricity of (\*)** 1 can be defined as all points equidistant from its focus and its directrix, which is a line perpendicular to this shape's line of symmetry. For 10 points, name this shape traced by quadratic functions like y equals x squared.

Answer: **parabola**

<SCI, OTHER>>

**Composer and work required. Count von Walsegg commissioned this work, whose "Lux aeterna" [ee-turn-ah] ending and all but eight bars of the Lacrimosa section were completed by Franz Sussmayr as he edited this work. This piece's composer simultaneously worked on (\*)** *The Magic Flute* and this piece, and remarked to his wife Constanze that this piece may be played at his own funeral. For 10 points, name this mass for the dead, left unfinished at the death of its Austrian composer in 1791.

Answer: Wolfgang Amadeus **Mozart**'s **Requiem** Mass in D minor, K. 626 (both answers required; prompt on Requiem (mass); prompt on mass; prompt on Mozart)

<FA, AUDIO>>

**This man described a ruler who kept ten thousand white horses, whose milk was fermented to make koumiss. This man also described the efficient empire-wide postal system and the paper currency used by the Yuan dynasty. He was imprisoned by (\*)** Genoa upon returning to his home city, and his stories were collected in the book *Il Milione*. For ten points, name this Venetian who met Kublai Khan during his travels on the Silk Road to China.

Answer: Marco **Polo**

<HIST, WORLD>>

**Two members of this movement collaborated on *And the Hippos Were Boiled in Their Tanks* in 1945. Another member of this movement wrote "I saw the best minds of my generation destroyed by madness" in the poem "Howl." William Burroughs, Allen Ginsburg, and the author of (\*)** *On the Road*, Jack Kerouac, were members of, for 10 points, what 1950's American literary movement, stereotyped by bongo-playing poets, that inspired the hippies of the 1960's?

Answer: **Beat** Generation (accept **beatnik**s)

<LIT, AMER>>

**In AC circuits, this quantity’s namesake right triangle can be used to find its “apparent” form. Intensity is equal to this quantity over area. In an electrical circuit, this quantity can be expressed as voltage squared over resistance, though it is more commonly denoted as (\*)** current squared time resistance or current times voltage. For 10 points, name this physical quantity, the amount of work done per unit time, measured in Watts.

Answer: **power** (accept specific answers like **electric power** or **mechanical power**)

<SCI, PHYS>>

**One song about this location was accused of hiding the message "Here's to my sweet Satan" in the lyrics backwards. In "Imagine," John Lennon claims "it's easy" to imagine that this location doesn't exist. A 2012 song asks (\*)** "Can't I just stay here? Spend the rest of my days here?" as Bruno Mars laments being "Locked Out of" this place. For 10 points, name this mystical location, the destination of a Led Zeppelin "Stairway."

## Answer: Heaven (accept Stairway to Heaven or Locked Out of Heaven)

<TRASH, POP CULT>>

**One scholar of this religion wrote a “Book of Changes” that is one of this religion’s “Five Classics.” Followers of this religion, whose scholars include Mencius, practice respect for their ancestors and parents, otherwise known as (\*)** filial piety. Emperors began following this religion after the decline of Legalism. For 10 points, name this philosophy based on the teachings of the Chinese author of the *Analects*.

Answer: **Confucian**ism

<RMPSS, PHIL>>

**During this man's presidency, Benajmin Bristow uncovered a scandal that included this man's secretary, Orville Babcock, regarding failure to pay taxes on whiskey production and sales. This man, whose presidency was sullied by the (\*)** Whiskey Ring scandal, was also troubled by the Credit Mobilier scandal and the Panic of 1873. For 10 points, name this President, who had a more successful career as Commanding General of the U.S. Army during the Civil War.

Answer: Ulysses S. **Grant**

<HIST, AMER>>

**In this work, Nicholas convinces John to sleep in a tub so he can sleep with Alisoun. A character in this work describes Arcite and Palamon’s fight for Emily, and a gap-toothed woman tells of a quest to find what women most desire, and another. The (\*)** Miller, the Wife of Bath, the Knight, and other pilgrims meet at Tabard Inn in, for 10 points, what collection of short stories written by Geoffrey Chaucer?

## Answer: The Canterbury Tales

<LIT, OTHER>>

**The differential scanning form of this device can quantify glass transition and crystallization in polymers. Lavoisier invented one of these devices filled with ice. One of these devices operates at constant volume and can withstand very high (\*)** pressures; that is the “bomb” type. A simple one can be constructed with a thermometer and two styrofoam cups. For 10 points, name this device commonly used to find the specific heat of a sample.

## Answer: calorimeter

<SCI, CHEM>>

**The loser of the first of these events was further threatened by an uprising called the Mercenary War. The Siege of Saguntum triggered the second of these events, while the last was spurred by**

**Cato the Elder's calls for destruction. The second of these conflicts saw (\*)** Scipio Africanus win the Battle of Zama against a force of war elephants led by Hannibal. For 10 points, name this series of three wars between Rome and Carthage.

## Answer: Punic Wars

<HIST, OTHER>>

**An orange grove is visible in the background of this painting, in which flowers flurry around Chloris and her consort. In this painting, a servant rushes to cover the title figure with a pink cloak while Zephyrus, god of the west wind, blows the central goddess to shore on a (\*)** scallop shell. For 10 points, name this painting by Sandro Botticelli, which shows the roman goddess of love rising from the sea.

## Answer: The Birth of Venus

<FA, VISUAL>>

**A 2014 paper attempted to solve the firewall paradox surrounding these objects. They undergo evaporation when particle-antiparticle pairs are generated; that radiation is named for the author of *A Brief History of Time* and the aforementioned paper, which argues that these objects have (\*)** apparent horizons, rather than event horizons. For 10 points, name these hypothetical regions of space whose gravitational pull prevents even light from escaping.

## Answer: black holes

<SCI, OTHER>>

**Cities in this country include the capital of the IOC, Lausanne, and Davos, which is home to the annual World Economic Forum. It includes Romansh as one of four official languages, and its states, known as cantons, include (\*)** Lucerne, Geneva, and Zurich. The Matterhorn lies on this country's southern border with Italy. The International Red Cross is based in, for 10 points, what famously neutral Alpine country with capital Bern?

## Answer: Switzerland

<GEO, GEO>>

**The protagonist of this work reunites with a friend during a performance of *Lucia di Lammermoor* and claims to be taking piano lessons in Rouen. In this novel, Hippolyte’s leg is amputated after a failed attempt to fix his clubfoot. Burdened by debt and failed affairs with Rodolphe (\*)** Boulanger [boo-lawn-JAY] and Leon Dupuis, the protagonist takes arsenic. Emma, the wife of Charles, is the title character of, for 10 points, what novel by Gustave Flaubert [floh-BAYR]?

Answer: **Madame Bovary**

<LIT, EURO>>

**This artist depicted a skyscraper at night in *Radiator Building*, but her later work focuses on natural images, including a series of jack-in-the-pulpits. After the death of her husband, Alfred (\*)** Stieglitz, this artist moved to New Mexico, where she painted *Cow’s Skull: Red, White, and Blue*. For 10 points, name this American artist known for depicting close-ups of flowers and bones.

Answer: Georgia (Totto) **O’Keeffe**

<FA, VISUAL>>

**A piece of this material that "has no earthly business in a Maine hayfield" hides a letter from Andy to Red in *The Shawshank Redemption*. After his foot was eaten, Tezcatlipoca replaced it with a mirror made of this material. This material, formed when flowing (\*)** water meets a lava source block, can be used to construct a Nether Portal in Minecraft. For 10 points, name this rock, which forms from rapidly cooling lava into a black, shiny volcanic glass.

Answer: **obsidian** (prompt on “volcanic glass” before mentioned)

<TRASH, POP CULT>>

**Franklin Sanborn was one of the "Secret Six" who funded this man's actions. He reacted to the sacking of Lawrence by committing the Pottawatomie Massacre, a pivotal moment during the "Bleeding Kansas" conflict. In October 1859, Marines led by (\*)** Robert E. Lee stopped him from inciting a slave revolt by capturing him in an armory. For 10 points, name this violent abolitionist whose raid on the armory at Harpers Ferry presaged the Civil War.

Answer: John **Brown**

<HIST, AMER>>

**Calculations in this theory can be simplified in a manifold named for Minkowski. This theory includes the “pole in the barn” and “twin” paradoxes, and it predicts length contraction and time dilation. This theory assumes the (\*)** speed of light to be constant in all reference frames; that fact can be used to derive E = mc2. For 10 points, name this theory, proposed by Einstein before its “general” counterpart.

Answer: **special relativity** (prompt on “relativity,” do not accept “general relativity”)

<SCI, PHYS>>

**The title event of one of this author’s works occurs after the protagonist eats overripe strawberries. He wrote about the hypnotist Cipolla in *Mario and the Magician* and included Settembri and Leo Naphtha in another work. This author described a visit to (\*)** Joachim Ziemssen and the seven-year sanatorium stay of Hans Castorp. For 10 points, identify this author of *Death in Venice* and *The Magic Mountain.*

Answer: (Paul) Thomas **Mann**

<LIT, EURO>>

**The city is home to a federal university on Fundão Island and Tijuca Forest National Park. A 98-foot tall statue tops this city's Corcovado Mountain, found just northwest of the Ipanema and Copacabana beaches and just west of Sugarloaf Mountain. The (\*)** Rio Maracanã flows through this city, which is home to Christ the Redeemer. For 10 points, name this host of the 2016 Summer Olympics that, behind Sao Paulo, is Brazil’s second largest city.

## Answer: Rio de Janeiro

<GEO, GEO>>

**The Eyring-Polyani equation modifies an equation named for this man that contains a preexponential factor and relates rate constant to activation energy and temperature. This scientist developed a theory involving increases in (\*)** hydrogen and hydroxide ion concentrations that was later replaced by the Bronsted-Lowry and Lewis theories. For 10 points, name this Swedish chemist who won a Nobel Prize for his work on acids and bases.

Answer: Svante **Arrhenius**

<SCI, CHEM>>

**One ruler from this place was the wife of France’s Louis XIII, Anne. Another Archduke of this place issued the Patent of Toleration. That ruler’s mother came to power after the issuing of the Pragmatic Sanction, was the mother of Marie Antoinette, and ruled during a war (\*)** of succession named after this country; those rulers were Joseph II and Maria Theresa. For 10 points, name this country where the Habsburgs ruled from Vienna.

## Answer: Austria (or Österreich)

<HIST, EURO>>

**Zeus wanted to wed this figure's mother until a prophecy foretold that this figure would become greater than his father. After his death, Ajax and Odysseus fought over his armor. (\*)** Paris killed this friend of Patroclus with a carefully aimed arrow, even though his mother had protected him as a child by dipping him in the river Styx. For 10 points, name this Greek mythical hero whose only vulnerability was his heel.

Answer: **Achilles**

<RMPSS, MYTH>>

**A parrot in this novel shrieks “Allez Vous-en!” [ah-LAY voo ZON] at passing cottage guests, and this novel’s protagonist cries upon hearing Mademoiselle Reisz’s [rize's] piano playing. The protagonist compares herself to the motherly Adele Ratignolle [rah-tih-nyoll] in her marriage to Léonce. She has an affair with Alcée Arobin [ah-roh-BAN] and falls in love with (\*)** Robert Lebrun, which ultimately leads to her suicide in the Gulf of Mexico. For 10 points, identify this novel about Edna Pontellier [pon-tell-ee-ay], a work by Kate Chopin [shoh-PAN].

Answer: The **Awakening**

<LIT, AMER>>

**This disorder results in discoloration of the iris known as Brushfield spots. Sleep apnea is common in this disorder due to an enlarged tongue. This disorder is more common in those born to mothers older than 35 years old, and it is caused by a trisomy, or the existence of (\*)** three chromosomal copies, of chromosome 21. A flattened nose and face, as well as slanted eyes, are observed in, for 10 points, which genetic disorder that causes severe mental disability?

Answer: **Down**’s **syndrome** (accept **trisomy 21** before “chromosome”)

<SCI, BIO>>

**The "Treaty of Peace and Amity" opened this country to trade with the United States. This country's Charter Oath sought to unify factions of the Boshin War, but nine years later, the Satsuma Rebellion failed at overthrowing the (\*)** Emperor. In the 1945 Jewel Voice Broadcast, this country's emperor renounced his divinity and surrendered to the Allies. For 10 points, name this country, whose Emperors Meiji and Hirohito ruled from Tokyo.

Answer: **Japan**

<HIST, WORLD>>

**In one work by this author, Mr. Guest recognizes two characters’ similar handwriting and Danvers Carew is murdered. In another work, Squire Trelawney hires Captain Smollett to lead a crew that includes young (\*)** Jim Hawkins and the pirate Long John Silver in a journey to the title location. For 10 points, identify this author of Dr. *Jekyll and Mr. Hyde* and *Treasure Island.*

Answer: Robert Louis (Balfour) **Stevenson**

<LIT, BRIT>>

**This designer of a planned community at Arthurdale resigned from the D.A.R. and arranged a concert at the Lincoln Memorial for Marian Anderson. This first chair of the UN Commission on Human Rights helped develop the Universal Declaration of Human Rights, which included the (\*)** “Four Freedoms” proposed by her husband. For 10 points, name this First Lady, the wife of Franklin D. Roosevelt.

Answer: **E**leanor **Roosevelt** (accept **Eleanor** alone after “Roosevelt” is read)

<HIST, AMER>>

**Leos Janacek dedicated his *Sinfonietta* to the army of this country, his homeland. Bedrich Smetana's *Ma Vlast* depicts this country, including its Vltava River. Another composer from this modern country traveled to America, where he composed the *American* string quartet and the (\*)** *From the New World* symphony. Antonin Dvorak championed the folk music of, for 10 points, what European country, whose Vltava River flows through the capital of Prague?

## Answer: Czech Republic or Czechoslovakia

<FA, AUDIO>>

**Amounts of this substance are measured by the GOMOS instrument. This substance is created in the coronal discharge method, although ultraviolet generation methods are used for sanitation of swimming pools. The Montreal Protocol protects this substance by limiting production of (\*)** CFCs. This substance in the stratosphere absorbs most solar UV radiation. For ten points, name this triatomic oxygen molecule found in a protective atmospheric layer.

Answer: **ozone** (accept **O3** before “triatomic” is read)

<SCI, OTHER>>

**In this work, Sergei Koznyshev joins a movement for the Slavs, and another character is upset that his horse Frou-Frou must be put down after a race. Levin impregnates Kitty in this novel, which sees Stiva cheat on his wife, Dolly. After a fight with (\*)** Count Vronsky, this novel’s title character commits suicide by jumping in front of a train. For 10 points, name this novel about a title woman, written by Leo Tolstoy.

## Answer: Anna Karenina

<LIT, EURO>>

**The clergy in this religion include Seventies and the Order of the Twelve, and are divided into Melchizedek [mehl-KIH-zah-deck] and Aaronic [ay-ron-ick] Priesthoods. Urim [oo-rim] and**

**Thummim [thoo-mihm] were used in the translation of holy texts in this religion. The angel (\*)** Moroni revealed this religion’s holy book, written on golden plates, to this denomination’s founder, Joseph Smith. For 10 points, name this Christian denomination headquartered in Salt Lake City, Utah.

Answer: Church of Jesus Christ of **Latter Day Saints** (accept **Mormon**ism; prompt on LDS)

<RMPSS, REL>>

**The truncated icosahedron features 20 faces of this shape and 12 pentagonal faces. The area of this regular polygon is three-halves times root 3 times the side length squared. This is the polygon with the most sides that can regularly tile the (\*)** plane. If its angles are bisected by its diagonals, equilateral triangles are formed because each of its angles measures 120 degrees. For 10 points, name this regular polygon with six sides.

Answer: regular **hexagon**

<SCI, OTHER>>

**In one work, this anti-mercantilist philosopher noted that it wasn't benevolence, but selfinterest, that made "the butcher, the brewer, or the baker" offer their services. That work by this author notes the power of division of labor and explained how (\*)** markets regulate themselves with the "Invisible Hand" metaphor. For 10 points, name this Scottish economist, the author of *The Theory of Moral Sentiments* and *The Wealth of Nations*.

Answer: Adam **Smith**

<RMPSS, SOC SCI>>

Bonuses:

This god was the father of Thor and the head of the Norse Pantheon. For 10 points each,

[10] Name this chief god of the Norse pantheon and wielder of Gungnir, who hung himself for nine days from Yggdrasil to gain knowledge.

Answer: **Odin** (accept **Wotann**)

[10] Odin’s steed was this eight-legged horse, who was born after Loki turned himself into a mare to distract Svadilfari [svahd-eel-fah-ree] from constructing Asgard’s walls.

Answer: **Sleipnir** [SLIPE-neer]

[10] Odin was also served by two of these dark birds, Huginn [HOO-gihn] and Muninn [MOO-nihn], who flew around the world and gathered information.

Answer: **raven**s

<RMPSS, MYTH>

This composer commemorated the 300th anniversary of the Augsburg Confession by composing the

*Reformation* Symphony, though he didn't publish it during his lifetime. For 10 points each,

[10] Name this German composer, whose other works include the *Italian* and *Scottish* symphonies.

Answer: Felix **Mendelssohn**-Bartholdy

[10] Mendelssohn was a prolific player of this keyboard instrument, which blows air through pipes to create sound. Answer: pipe **organ**

[10] Mendelssohn may be best known today for a set of incidental music for this Shakespeare play, including a Wedding March, indicating that Theseus and Hippolyta, Lysander and Hermia, and Demetrius and Helena have all been married.

Answer: A Midsummer Night's Dream

<FA, AUDIO>>

In one work by this author, Tom Canty and Edward VI [“the sixth”] switch places, and both are accused of insanity. For 10 points each,

[10] Identify this author of *The Prince and the Pauper.* The title character is in love with Becky Thatcher and finds gold in a cave in this man’s novel *The Adventures of Tom Sawyer.*

Answer: Mark **Twain** (accept Samuel Langhorne **Clemens**)

[10] Twain wrote this novel about Hank Morgan, a fairly ordinary American who wakes up in medieval England and uses his superior knowledge of science to take power.

Answer: A Connecticut Yankee in King Arthur’s Court

[10] In this Twain short story, Simon Wheeler tells a story about the title animal when the narrator asks for information about Leonidas W. Smiley.

Answer: The Celebrated **Jumping Frog** of Calaveras County (accept **Jim Smiley and his Jumping Frog**)

<LIT, AMER>>

When the Taniyama-Shimura conjecture about the modularity of semistable elliptical curves was proven true, it combined with Ken Ribet's proof of the epsilon conjecture to prove this theorem true. For 10 points each,

[10] Name this theorem, which was claimed without proof in the margins of a textbook in 1637. The aforementioned 150-page proof was finished by Andrew Wiles in 1995.

Answer: **Fermat's Last** Theorem (prompt on “Fermat’s Theorem;” do not accept Fermat’s little theorem) [10] Fermat's Last Theorem is concerned with an equation that traditionally uses the letters a, b, c, and n, where n serves this role.

Answer: the **exponent** (or **power**) of a, b, and c (accept answers describing "**to the n** power," such as "a to the n plus b to the n equals c to the n")

[10] Euler [OY-lur] made a mistake in a proof of one case of Fermat's Last Theorem where n was this number -- but it's OK, he had the fix for that proof in his other work. This is the smallest exponent for which Fermat's Last Theorem states there is no solution.

Answer: **3**

<SCI, OTHER>>

An incredible stock market bubble, agricultural failures, a high amount of personal debt, and numerous other factors contributed to this decade-long economic catastrophe. For 10 points each, [10] Give this two-word term for the massive recession of the world's economy in the 1930's.

Answer: Great Depression

[10] This U.S. President was in office during the stock market's crash in 1929 and the start of the Great Depression.

Answer: Herbert **Hoover**

[10] Hoover opened this governmental agency in 1932 to loan nearly two billion dollars per year to banks and businesses to re-start the nation's economy.

Answer: **R**econstruction **F**inance **C**orporation

<HIST, AMER>>

Famous examples of these include the giant panda’s “thumb” and the beak shapes of Darwin’s finches.

For 10 points each,

[10] Give the term for these inherited traits that enhance the survival of an organism in its environment. Larger brains and walking upright were such traits in human ancestors.

Answer: **adaptation** (accept **adaptive** traits)

[10] The almost identical adaptations seen in the bodies of dolphins and extinct ichthyosaurs result from this type of evolution in which unrelated species evolve in similar environments.

Answer: **convergent** evolution

[10] Convergent evolution among birds produced the now extinct North Atlantic great auk and these living flightless birds of Antarctica. Both groups had the same black-and-white color pattern.

Answer: **penguin**s

<SCI, BIO>>

A Dinosaur Comics strip about "[this game] AS SHE IS PLAYED" notes that its object is to "fully explore the sensations of boredom, sorrow, and rage." For 10 points each,

[10] Name this classic Parker Brothers board game in which you seek to buy properties like Park Place and Boardwalk. Answer: **Monopoly**

[10] A common house variation, but not an official Monopoly rule, is to award $500, or some other amount, to anyone who lands on this corner space between New York and Kentucky Avenues.

Answer: Free Parking

[10] On television, the Simpsons own five versions of the game: "regular Monopoly, Star Wars

Monopoly, Rasta-Mon-opoly, Galip-olopoly, and" one named for this character, Bart Simpson's 4th grade teacher. She was retired from the show when her voice actress, Marcia Wallace, passed away.

Answer: **Edna** **Krabappel**-Flanders (accept either underlined name; accept **Edna Krabappoly**; be lenient and accept **Krabappoly**)

<TRASH, POP CULT>>

In one work by this author, Paul Pokriefke [poh-kreff-kee] is born on the same day the *Wilhelm Gustloff* sinks. For 10 points each,

[10] Identify this author of *Crabwalk*, who wrote about Oskar Matzerath in *The Tin Drum,* the first book of his *Danzig* [DAHN-sihg] *Trilogy.*

Answer: Gunter Wilhelm **Grass**

[10] Oskar plays his tin drum in the Rhine River Band, who play this kind of music. In another work, the saxophonist Pablo plays this genre of American music, known for improvisation and swing notes.

Answer: **jazz**

[10] *The Tin Drum* is a work in this literary genre, in which strange or unnatural objects or events are treated like a part of everyday life.

Answer: **magic**al **realism** (both underlined parts required)

<LIT, EURO>>

The European Space Agency launched the Planck spacecraft to measure the CMBR and estimate this value. For 10 points each,

[10] Name this quantity, estimated to be a bit less than 14 billion years.

Answer: **age of the Universe** (accept clear knowledge equivalents)

[10] This event occurred 14 billion years ago and is currently the best model for how the Universe came into existence. It was followed by cosmic expansion.

Answer: the **Big Bang**

[10] This event, the creation of heavier-than-hydrogen elements like helium-4 and lithium-7, took place within minutes after the Big Bang. This term can also refer to the creation of elements within stars.

Answer: Big Bang (or primordial) **nucleosynthesis** (accept stellar **nucleosynthesis**; prompt on "nuclear fusion")

<SCI, OTHER>>

In some stories, this Hindu god was born from a golden egg, and became the father of humanity. For 10 points each,

[10] Name this creator god, who is a member of the Trimurti along with Shiva and Vishnu.

Answer: **Brahma** (do not accept “brahman”)

[10] The Trimurti is often called the Hindu version of this Christian concept, which defines God as one being that is comprised of the Father, Son, and Holy Spirit.

Answer: holy **trinity**

[10] In some legends, Brahma was born from one of these Indian water flowers, which represent purity and are also symbolic to Buddhism.

Answer: sacred **lotus** (accept “Indian **lotus**”)

<RMPSS, REL>>

This quantity is measured in Newton-meters, a unit dimensionally equal to Joules, though this quantity is not a form of energy. For 10 points each,

[10] Name this rotational analog of force that causes movement around an axis of rotation. It is given as lever arm cross applied force, and symbolized τ [tau].

Answer: **torque**

[10] The time derivative of this quantity equals torque. This quantity is conserved when there is no net external torque, and an intrinsic form of this quantity is spin.

Answer: **angular momentum** (prompt on “momentum;” do not accept “linear momentum”)

[10] Angular momentum is the product of moment of inertia and the angular form of this quantity. This vector quantity describes the speed of an object and its direction of motion.

Answer: **velocity**

<SCI, PHYS>>

The narrator of this novel remembers playing checkers with Jane Gallagher and wants to protect his sister. For 10 points each,

[10] Name this American coming-of-age novel whose narrator, Holden Caulfield, leaves Pencey Prep and shows disdain for “phonies.” Answer: The **Catcher in the Rye**

[10] Though Holden Caulfield wants to protect this girl, his younger sister, she proves herself to be the more mature sibling. Answer: **Phoebe** Caulfield

[10] This man wrote “A Perfect Day for Bananafish" and *Franny and Zooey* in addition to *The Catcher in the Rye*.

Answer: J(erome) D(avid) **Salinger**

<LIT, AMER>>

Bridges are often important military objectives, as they can create chokepoints to slow an army's advance or retreat. For 10 points each,

[10] In 312 CE, Constantine I soundly defeated Maxentius at the Battle of the Milvian Bridge, which spans this major river of Rome. Maxentius drowned in this river's waters during the battle.

Answer: **Tiber** River

[10] A month before the 1066 Battle of Hastings, Harald Hardrada was killed by Harold Godwinson's army at this battle on the River Terwent.

Answer: Battle of **Stamford Bridge**

[10] In 1297, this kingdom defended its freedom at Stirling Bridge by routing a surrounded English army. This kingdom's forces at Stirling Bridge were led by Andrew Moray and William Wallace.

Answer: Kingdom of **Scotland**

<HIST, EURO>>

[MODERATOR: do not reveal the alternate answer to Part 1 if teams do not give it.]

This theory allows for the geometries of molecules to be determined from their Lewis structures. For 10 points each,

[10] Name this theory which assumes that electron domains in a molecule will arrange themselves so they experience the least repulsion.

Answer: **VSEPR** theory ["vesper" theory] (also accept **v**alence-**s**hell **e**lectron **p**air **r**epulsion theory) [10] These kinds of electrons, which come from their namesake "shell," appear in Lewis structures and affect molecular geometries. Oxygen has six of this kind of electron, while sodium has one.

Answer: **valence** electrons

[10] A water molecule has this geometry because it has two bonding and two nonbonding electron domains. Answer: **bent**

<SCI, CHEM>>

Answer some questions about painters of landscapes, for 10 points each.

[10] This founder of impressionism painted several landscapes of his garden in Giverny that prominently feature water lilies.

Answer: (Oscar-)Claude **Monet** (do not accept “Manet”)

[10] Thomas Cole, the painter of landscapes such as *The Oxbow* and *The Titan’s Goblet*, founded this American school of art named after a New York waterway.

Answer: **Hudson River** School

[10] This English painter created several landscapes of Dedham Vale and depicted a wagon crossing the river Stour in *The Hay Wain*.

Answer: John **Constable**

<FA, VISUAL>>

The cities of Saint Petersburg and Tallinn lie on the shores of this body of water, which is the southern border of its namesake country. For 10 points each, [10] Name this European gulf on which Helsinki also lies.

Answer: Gulf of **Finland**

[10] Another city on the Gulf of Finland is Narva, which lies roughly equidistant between Tallinn and St.

Petersburg on the border between these two nations.

Answer: **Estonia** and **Russia** (both underlined parts required)

[10] The Gulfs of Finland and Bothnia are arms of this sea, which lies west of Estonia, Latvia, and Lithuania.

Answer: **Baltic** Sea

<GEO, GEO>>

For 10 points each, give the following about the work of Emile Durkheim.

[10] Durkheim sought to create a purely scientific approach to this social science, the study of human behavior in group settings. Answer: **sociology**

[10] Durkheim's most famous sociological study dealt with this phenomenon, the intentional ending of one's own life. Durkheim's study showed that, among other comparisons, soldiers performed it more often than civilians.

Answer: **suicide**

[10] Durkheim described one cause of suicide by this French term, which describes a state in which individuals feel a lack of social structure and guidance.

Answer: **anomie** (accept word forms like **anomic**)

<RMPSS, SOC SCI>>

For 10 points each, give the following about early American agriculture.

[10] The Jamestown colony was heavily supported by the export of this crop, which was grown by John Rolfe and introduced to Europe by Sir Walter Raleigh.

Answer: **tobacco**

[10] Tobacco rivaled a certain textile crop as the primary export of the South until 1793, when this machine simplified production of a certain textile crop by quickly separating the seeds from the fiber.

Answer: **cotton gin** (prompt on "gin")

[10] This businessman invented the cotton gin in 1793.

Answer: Eli **Whitney**

<HIST, AMER>>

This technique was used to decorate the *Book of Hours*. For 10 points each,

[10] Name this technique, in which the images, borders, or letters of a book are decorated with bright paint or gold and silver leaf. It creates namesake “manuscripts” and can also mean “to light up.”

Answer: **illumination** (accept word forms such as **illuminate**; accept **illuminated manuscripts**)

[10] Medieval monks frequently illuminated this holy book of Christianity, which is composed of Old and New Testaments.

Answer: Holy **Bible**

[10] Illuminated Bibles largely stopped being produced with the invention of moveable type, which was first used by this German printer.

Answer: Johannes (Gensfleisch zur Laden zum) **Gutenberg**

<RMPSS, REL>>

This man promoted Usonian architecture, and was a strong proponent of the Prairie School style. For 10 points each,

[10] Name this American architect, who created the Tokyo Imperial Hotel and Robie House.

Answer: Frank Lloyd **Wright** (accept Frank Lincoln **Wright**)

[10] Wright cantilevered portions of this Prairie School house over a river in Pennsylvania for Edgar

Kaufmann’s family.

Answer: **Fallingwater**

[10] Wright planned many of his designs from this Wisconsin studio named for a Welsh bard. He later designed a “West” studio with this name in Arizona.

Answer: **Taliesin** East (accept **Taliesin** I)

<FA, OTHER>>

This Royal Navy Commander first appeared in the novel *Casino Royale*. For 10 points each,

[10] Name this British secret agent, also known as 007 [“double-oh-seven”], who appears in many Ian Fleming works.

Answer: James **Bond**

[10] In this author’s novel *The Secret Adversary*, the detectives Tommy and Tuppence work with British intelligence agent Mr. Carter. This author also created the detectives Hercule Poirot [ayr-KYOOL pwahROH] and Miss Marple.

Answer: Dame Agatha Mary Clarissa **Christie**

[10] This British author based his novel *Ashenden: Or the British Agent* on the time he spent as a secret agent. He also wrote about the club-footed Philip Carey in *Of Human Bondage*.

Answer: W(illiam) Somerset **Maugham** [mawm]

<LIT, BRIT>>

Examples of these mathematical entities include x to the first power and *x* to the second power, but not *x* to the three-halves power. For 10 points each,

[10] Name this type of expression that involves only addition and multiplication of real numbers and variables with positive integer exponents.

Answer: **polynomial** (accept **monomial**)

[10] Information about the roots of a polynomial can be found quickly by finding this quantity. For the quadratic polynomial *a x* squared plus *b x* plus *c*, this quantity is equal to *b* squared minus 4 *a c*.

Answer: **discriminant**

[10] When a polynomial *f(x)* [f of x] is divided by (*x-a*) [x minus a], it will either factor or leave this quantity, which, according to an important theorem, is then equal to *f(a)* [f of a].

Answer: **remainder** (accept **Remainder Theorem**)

<SCI, OTHER>>

For 10 points each, give the following about surprise attacks in Japanese history.

[10] Admiral Yamamoto Isoroku planned the bombing of this Hawaiian naval base on December 7th, 1941 that sparked US involvement in World War II.

Answer: **Pearl Harbor**

[10] In 1904, Japan's navy attacked this country's fleet at Port Arthur, three hours before officially declaring war against it. The ensuing war between this country and Japan ended with the Treaty of Portsmouth, which was brokered by Teddy Roosevelt.

Answer: **Russia** (accept **Russian Empire**; do not accept "USSR" or "Soviet Union")

[10] In the 1560 Battle of Okehazama, this daimyo's forces sneaked to the rear of the opposing army, killing the opposing leader at his tent. This unifier of Japan was succeeded by Toyotomi Hideyoshi and Tokugawa Ieyasu.

Answer: **Oda** Nobunaga

<HIST, WORLD>>

This author of the collection *Mosses from an Old Manse* chronicled the deteriorating Pyncheon family in *The House of the Seven Gables*. For 10 points each,

[10] Name this American author of “Dr. Heidegger’s Experiment,” “The Minister’s Black Veil,” and *The Scarlet Letter*.

Answer: Nathaniel **Hawthorne** (accept Nathaniel **Hathorne**) [10] “Dr. Heidegger’s Experiment” and “The Minister’s Black Veil” are stories from this Hawthorne collection, which was famously reviewed by Edgar Allan Poe.

Answer: **Twice-Told Tales**

[10] This short story by Hawthorne, collected in *Mosses from an Old Manse*, follows the title Puritan, who comes to believe that his wife, Faith, is a witch.

Answer: **Young Goodman Brown**

<LIT, AMER>>

Landscapes consisting of this rock are known as karsts and often feature cracks and holes where acidic water dissolves it. For 10 points each,

[10] Name this calcium carbonate rock, a common sedimentary rock used as building material in the Great Pyramids.

Answer: **limestone**

[10] Speleologists study these underground structures, the result of extensive dissolution of limestone or similar rocks. These hollow spaces may feature stalagmites and stalactites.

Answer: **cave**s (accept **cavern**s)

[10] Most dissolution of limestone karsts results from the behavior of this weak acid, formed from a solution of carbon dioxide and water.

Answer: **Carbonic** acid (accept **H2CO3**)

<SCI, OTHER>>

This is the second longest river in its nation, after the Severn. For 10 points each,

[10] Name this river, which passes through Oxford on its route to the North Sea. It has been the site of Olympic rowing competitions twice, though Dorney Lake was used instead in 2012.

Answer: **Thames** River

[10] The Thames River flows through this capital of the United Kingdom.

Answer: **London**

[10] Sometimes called the Millennium Wheel, this large Ferris Wheel on the south bank of the Thames opened in 2000. Answer: London **Eye**

<GEO, GEO>>

Some conspiracy theorists claim that a gunman involved in this event stood on a grassy knoll, either in addition to or instead of a gunman in the Texas School Book Depository. For 10 points each, [10] Name this November 22nd, 1963 event in which Texas governor John Connolly was wounded.

Answer: **assassination** of **J**ohn F. **Kennedy** (accept equivalents for "assassination;" accept "JFK" for

"Kennedy;" prompt on "assassination of Kennedy" alone)

[10] The Warren Commission concluded that this man was the lone gunman responsible for Kennedy's death. After fleeing from the Book Depository, he killed police officer J.D. Tippit before being captured in a movie theater.

Answer: Lee Harvey **Oswald**

[10] While being transported out of police headquarters, Oswald was fatally shot by this nightclub owner.

Answer: Jack Leon **Ruby** (accept Jack Leon **Rubenstein**)

<HIST, AMER>>

This man’s ten older brothers were the sons of Leah, Bilhah, and Zilpah. For 10 points each, [10] Name this Biblical son of Jacob, whose beautiful coat made his brothers jealous enough to sell him into slavery in Egypt.

Answer: **Joseph** (accept **Yosef**)

[10] This woman was the mother of Joseph and Benjamin, and was the sister of Jacob’s first wife, Leah.

Answer: **Rachel** (accept **Rahil**)

[10] To earn the right to marry Rachel, Jacob worked for this resident of Paddan Aram [pah-dahn ahrahm] for fourteen years. This man was Rachel’s father, and was the brother of Jacob’s mother, Rebecca.

Answer: **Laban** [lay-behn]

<RMPSS, REL>>

Answer some questions about Nordic influences on English language and literature, for 10 points each.

[10] This Old English epic poem romanticizes the story of the title Geat [“gate”], who aids Hrothgar, the King of the Danes, by defeating Grendel.

Answer: **Beowulf**

[10] In the Middle Ages, Vikings settled in the “Danelaw” [DAYN-law] in what is now England, and gave the English language the third-person plural pronouns we use today. Name either of those pronouns.

Answer: **they** or **them** (accept either or both underlined words)

[10] Snorri Sturluson [“snore”-y STUR-luh-son] wrote the “Prose” work of this name which, with the

“Poetic” one, provides a background to many Norse myths and a description of Old Norse poetic forms.

Answer: **Edda**s [AY-dah] (accept **Eddur**; accept **Prose Edda** or **Younger Edda** or **Snorri’s Edda** or **Snorra Edda**; accept **Poetic Edda**)

<LIT, OTHER>>

This man's self-written epitaph notes that he authored a statute for religious freedom and the

Declaration of Independence and founded a university. For 10 points each,

[10] Name this Founding Father, whose epitaph neglected to mention his service as the third President of the United States.

Answer: Thomas **Jefferson**

[10] In 1819, Jefferson founded this university in Charlottesville in his home state.

Answer: University of **Virginia**

[10] Jefferson taught himself architecture, studying the work of Andrea Palladio, so he could design this mansion on his plantation near Charlottesville.

Answer: **Monticello**

<HIST, AMER>>

This Greek poet described five Ages of human existence, spanning from the Golden Age to the current Iron Age. For 10 points each,

[10] Name that poet of *Theogony*, who wrote about the Ages of man in his *Works and Days*.

Answer: **Hesiod**

[10] In *Works and Days*, the Golden Age is presided over by this Greek god, who overthrew his father,

Uranus, with the help of his mother, Gaia [“GUY”-ah].

Answer: **Cronus**

[10] Cronus was, in turn, overthrown by this god, the husband of Hera, who was the king of the Olympians from the Silver Age to the Iron Age.

Answer: **Zeus**

<RMPSS, MYTH>>

By the Lewis definition, these compounds are electron pair donors. For 10 points each,

[10] Name these compounds with pH greater than 7. A common laboratory example is sodium hydroxide.

Answer: **base**s

[10] In a neutralization reaction, an acid reacts with a base to form water and one of these ionic compounds. Examples include potassium nitrate and barium chloride.

Answer: **salt**s

[10] Salts containing this transition metal can be used to detect the presence of chloride ions. In a classic example, sodium chloride reacts with this ion in solution to produce a white precipitate.

Answer: **silver** (accept **Ag**)

<SCI, CHEM>>

Identify the following short story writers, for 10 points each.

[10] This Argentine author collected stories like “The Library of Babel” and “The Garden of Forking Paths” in *Ficciones* [FIK-see-oh-nays]*.*

Answer: Jorge (Francisco Isidoro) Luis **Borges** [HOR-hay loo-EES BOR-hays]

[10] This Russian author wrote about Akaky Akakievich's [ah-kah-kee ah-kah-kyah-vich's] death in “The

Overcoat”and about a runaway body part belonging to Major Kovalyov in “The Nose.”

Answer: Nikolai Vasilevich **Gogol**

[10] This French author of “Ball of Fat”wrote of Madame Loisel’s [lwah-ZELL’s] struggle to replace a worthless piece of jewellery of Madame Forestier [foh-reh-stee-AY] in “The Necklace.”

Answer: (Henri René Albert) Guy de **Maupassant**

<LIT, EURO>>

The taiga biome consists mainly of plants from this group. For 10 points each,

[10] Name this group of nonflowering plants that includes cycads, ginkgos, and conifers like pine and spruce.

Answer: **gymnosperm**s (accept **Gymnospermae**)

[10] The word gymnosperm means “naked” *these* in Greek. These consist of plant embryos and their food supply inside a protective coat; edible ones include beans and peanuts.

Answer: **seed**s

[10] Most conifers have both female cones that hold the seeds and male cones that produce these grains needed for fertilization. It can be spread by both wind and insects.

Answer: **pollen**

<SCI, BIO>>

For 10 points each, give the following about Nikolai Rimsky-Korsakov.

[10] A short piece by Rimsky-Korsakov features runs of sixteenth notes on violin or flute to depict the "Flight of" this stinging insect.

Answer: Flight of the **Bumblebee**

[10] Rimsky-Korsakov depicted the legendary Russian musician Sadko in an 1867 work in this genre of one-movement compositions that illustrate a story. Richard Strauss' *Also Sprach Zarathustra* is another of these works.

Answer: **symphonic poem** or **tone poem** (prompt on "program music")

[10] The movements of this other Rimsky-Korsakov symphonic poem depict stories from *The Arabian Nights* and are separated by solo violin intermezzos signifying the title character, the wife of Shahriyar.

Answer: **Scheherazade** [shah-hare-ah-zahd]

<FA, AUDIO>>

These Catholic rulers introduced the Inquisition into their land and issued the 1492 Alhambra decree, requiring all Jews to convert or leave within months. For 10 points each,

[10] Name these two rulers, who nominally united the kingdoms of Aragon and Castille with their 1469 marriage.

Answer: **Ferdinand** II of Aragon and **Isabella** I of Castille (accept the **Catholic Monarchs**)

[10] Ferdinand and Isabella supported New World exploration by funding this Genoan admiral, who landed in the Bahamas in 1492.

Answer: Christopher **Columbus** (accept Cristóbal **Colón**)

[10] Also in 1492, Ferdinand and Isabella finished a war against the Nasrid dynasty in Granada, ending Muslim control in Iberia and finalizing this roughly eight-century-long period of Christian/Muslim conflict.

Answer: **Reconquista**

<HIST, EURO>>

Name some things about the Einstein field equations, for 10 points each.

[10] The Einstein field equations are used in this theory that relates spacetime curvature to energy and momentum. It predicts gravitational lensing and frame-dragging.

Answer: **general relativity** (prompt on “relativity;” do not accept “special relativity”)

[10] Einstein called this quantity his “biggest blunder,” and he initially used it to predict a static universe in his equations. Modern cosmology uses this quantity to explain the accelerating expansion of the universe.

Answer: **cosmological constant** (accept **lambda**)

[10] In simple problems, the Einstein field equations reduce to this law, which states that each thing in the universe exerts an attractive force on every other thing in the universe.

Answer: Newton's Law of **Universal Gravitation** (prompt on "gravitation" or "gravity" alone)

<SCI, PHYS>>

In 1845, a British flagstaff was controversially cut down in this modern country, sparking a year of war. For 10 points each,

[10] Name this Oceanic nation consisting of a North Island, South Island, and many small islands roughly one thousand miles east of Australia.

Answer: New Zealand

[10] These native New Zealanders are often compared with Australian aborigines in terms of how they were treated by Western colonists. The "Musket Wars" were a series of conflicts between these people in the 19th century. Answer: **Maori**

[10] The British colonists signed this treaty with the Maori in 1840, giving control of New Zealand to Britain. Wording differences between the English and Maori versions of the treaty have led many to believe it is invalid.

Answer: Treaty of **Waitangi**

<HIST, WORLD>>

These equations can be more easily determined with the steady state approximation. For 10 points each,

[10] Name these equations that describe how quickly a reaction goes to completion. They include a namesake constant times the concentrations of each reactant raised to a power.

Answer: rate laws (accept rate equations)

[10] This measure of concentration is used in rate laws. In it, concentration equals moles of solute divided by liters of solution.

Answer: **molarity** (do not accept “molality”)

[10] Rate laws can predict this quantity, the amount of time in which 50% of the reactant becomes product. In nuclear chemistry, it’s used to measure how quickly an isotope decays.

Answer: **half-life**

<SCI, CHEM>>

This quantity was designed in the aftermath of the Great Depression to measure the recovery of the United States' economic power. For 10 points each,

[10] Name this measurement of the total value of all goods and services produced within a country in a year.

Answer: **G**ross **D**omestic **P**roduct (do not accept gross national product or GNP)

[10] The expenditure method of calculating GDP includes the amount of private spending, commonly referred to by this term. This component of GDP includes the value of purchased goods and services, but not the value of new houses or business equipment, which are instead considered investment.

Answer: **consumption**

[10] GDP also includes the net amount of this trade activity, the shipping of goods to foreign countries.

Answer: net **export**s (accept word forms like **exportation**)

<RMPSS, SOC SCI>>

Identify some authors who favored musical themes, for 10 points each.

[10] This poet of the Harlem Renaissance described walking down Lenox Avenue and hearing a “drowsy syncopated tune” in the poem “Weary Blues.”

Answer: (James Mercer) Langston **Hughes**

[10] This Japanese author included a waiter who whistles *The Thieving Magpie* in his novel *The Windup*

*Bird Chronicle*,and used Beethoven’s *Archduke Trio* as a motif in his novel *Kafka on the Shore.*

Answer: Haruki **Murakami** (accept **Murakami** Haruki)

[10] This Russian author wrote about Pozdnyshev [POZ-nuh-shev], who kills his wife after she cheats on him with a violinist in *The Kreutzer Sonata.* This man also wrote *War and Peace.*

Answer: Lev (or Leo) Nikolayevich **Tolstoy**

<LIT, OTHER>>

The ten-page paper "On the Number of Primes Less Than a Given Magnitude," published in 1859, introduced an important conjecture in number theory that remains unproven today. For 10 points each, [10] The paper was written by this German mathematician. He is also the namesake of a method of summation, used to approximate the area of a curved region,that inspired the first conception of an integral.

Answer: Bernhard **Riemann** (accept Riemann hypothesis, Riemann conjecture, Riemann sum, Riemann integral, etc.)

[10] The paper introduces the Riemann zeta function, whose inputs are numbers of the form *a*+*bi* (“a plus b i”), where *a* is called the real part and *b* is called the imaginary part; therefore, the inputs are this type of number.

Answer: **complex** number(s)

[10] The Riemann zeta function is concerned with a pair of expressions studied by this earlier Swiss mathematician, the namesake of the transcendental number *e*.

Answer: Leonhard **Euler** [OY-lur]

<SCI, OTHER>>

This poem was originally titled for a "Defense of" a fort that was shelled during the War of 1812, and it was set to the tune of "To Anacreon in Heaven," a contemporary drinking song. For 10 points each,

[10] Name this song written by Francis Scott Key. It was declared the American national anthem by President Hoover in 1931.

Answer: The Star-Spangled Banner

[10] Key was inspired to write the lyrics for The Star-Spangled Banner after seeing the flag rise above this fort.

Answer: Fort **McHenry**

[10] Fort McHenry defends this Maryland city's harbor on the Chesapeake Bay.

Answer: Baltimore

<HIST, AMER>>

In one work by this author, Lord Henry Wotton gives the protagonist a yellow book. For 10 points each,

[10] Name this author, who wrote of the artist Basil Hallward in *The Picture of Dorian Gray.*

Answer: Oscar **Wilde**

[10] Wilde also wrote this play, in which Algernon Moncrief proposes to Cecily, Jack Worthing proposes to Gwendolen, and Lady Bracknell’s cucumber sandwiches are eaten.

Answer: The Importance of Being Earnest

[10] After being imprisoned for his affair with Lord Douglass, Wilde wrote this poem, which includes the lines “for each man kills the thing he loves / yet each man does not die.”

Answer: Ballad of Reading Gaol ["jail"]

<LIT, BRIT>>

For 10 points each, give the following about attempts to make children listen to classical music. [10] The title boy of this Sergei Prokofiev work is warned by his grandfather to be careful in the meadow, lest he be eaten by the other title character, an animal represented orchestrally by French horns.

Answer: Peter and the Wolf

[10] In one movement of this 1940 Walt Disney film, Leopold Stokowski's Philadelphia Orchestra plays Paul Dukas' [doo-KAH's] *The Sorcerer's Apprentice* as Mickey Mouse fails to control his magic spells.

Answer: **Fantasia**

[10] This English composer's *The Young Person's Guide to the Orchestra* opens with a theme, then has each section of the orchestra play a variation on that theme.

Answer: Benjamin **Britten**

<FA, AUDIO>>

This species’ genome has four pairs of chromosomes and the males have sex combs on their legs. For 10 points each,

[10] Name this model organism whose traits like white eyes and curly wings were extensively studied by a Columbia University professor .

Answer: **Drosophila** melanogaster or the common **fruit fly** (accept **vinegar fly**)

[10] This scientist’s studies of Drosophila mutations inspired his concept of chromosomal crossing over. Answer: Thomas Hunt **Morgan**

[10] Fruit flies, like humans, utilize these two chromosomes for determining the sex of individuals.

Answer: **X** and **Y** chromosomes

<SCI, BIO>>

In one short story, Elizabeth Spencer writes that “August in [this state] is different than July...July heat is furious, but in August the heat has killed even itself and lies dead over us.” For 10 points each, [10] Name this U.S. state, the setting of Eudora Welty's "A Worn Path." The novels *Light in August* and

*As I Lay Dying* are set in this state’s fictional Yoknapatawpha [yawk-nah-pah-taw-fah] County.

Answer: **Mississippi**

[10] This Mississippi author wrote *Light in August* and *As I Lay Dying*, as well as *The Reivers* and several works about Quentin Compson.

Answer: William Cuthbert **Faulkner** (or William Cuthbert **Falkner**)

[10] The Compson family appears in this Faulkner novel, in which Quentin, a student at Harvard, drowns himself in the Charles River. This novel’s title is taken from *Macbeth*.

Answer: The **Sound and the Fury**

<LIT, AMER>>

The Stanley Cup isn't the only hardware the NHL gives out! For 10 points each,

[10] The Hart Memorial Trophy is the official name of this NHL award, given to Sidney Crosby in 2014 and eight consecutive times to Wayne Gretzky.

Answer: **M**ost **V**aluable **P**layer

[10] The Vezina Trophy is given to the best player of this position. The league's GM's vote to decide this award now, but until 1964, it was simply given to the primary player of this position for whichever team gave up the fewest goals. Answer: **goaltender** (or **goalie**)

[10] This trophy is awarded to the NHL "regular season champion" -- that is, the team with the most standings points. The Boston Bruins won this in 2014 with 54 wins, 19 losses, and 9 shootout losses for 117 points.

Answer: **Presidents'** Trophy

<TRASH, SPORTS>>

Brutalism is an architectural style that uses massive concrete buildings to give an impression of strength and modernity but, to many, it's incredibly outdated and ugly. For 10 points each,

[10] This city saw a seven-year debate over demolishing a Brutalist-inspired church on K Street; its parishoners wanted to replace it with an updated building. Other Brutalist buildings here include FBI Headquarters.

Answer: **Washington**, D.C.

[10] The Prentice Women's Hospital at Northwestern University in Evanston, just north of this large Midwestern city, is also being torn down. This city's mayor, Rahm Emanuel, has supported its replacement with a new medical facility.

Answer: **Chicago**, Illinois

[10] This city's downtown Mummers Theater was scheduled for demolition in 2014 thanks to flooding. The site is roughly a mile from a memorial at the former Alfred P. Murrah Federal Building, site of a 1995 bombing.

Answer: **Oklahoma City**, Oklahoma (prompt on "OKC")

<GEO, GEO>>

When subjected to tensile stress, gold and silver generally have this property, while lead does not. For 10 points each,

[10] Give this term for the ability of a metal to be stretched into a wire. It's often compared with malleability, the ability to be compressed into a flat sheet.

Answer: **ductility** (accept word forms like **ductile**)

[10] Tensile and compressive stresses, as well as twisting, bending, and changes in temperature, can cause the metal to strain and change its shape, a process known by this general term. Rigid bodies do not undergo this process.

Answer: **deformation** (accept word forms like **deform**)

[10] As stress increases, deformation goes through two stages: this stage, when the shape change can be reversed, and plastic, when the shape change is irreversible. This adjective often describes materials, like rubber, that return to their original shape when deformed.

Answer: **elastic** (accept word forms like **elasticity**)

<SCI, PHYS>>

[MODERATOR: Do not reveal the alternate answers to part 1 if they are not given by players] This structure was likely built on or near its namesake Mount in Jerusalem. For 10 points each,

[10] Name this building, which was planned by a warlike King of Israel and built by his son. This building housed the Ark of the Covenant, which had formerly rested in the Tabernacle of Moses.

Answer: **First Temple** (accept **Solomon’s Temple** or **Temple of Solomon**; prompt on “Temple in

Jerusalem;” prompt on “Holy Temple;” prompt on “Temple” alone)

[10] The First Temple was built by this wise King of Israel, who consorted with the Queen of Sheba and discovered a child’s real mother by threatening to cut the baby in half.

Answer: King **Solomon** (accept **Schlomo**; accept **Suleyman**; accept **Jedediah**)

[10] Solomon was Bathsheba’s second son by this king, who defeated the giant Goliath as a young man. Answer: King **David** (accept **Dawud**)

<RMPSS, REL>>

This power was the subject of the 2005 Supreme Court case *Kelo v. City of New London*, which resulted in ninety acres of homes being bulldozed; after the Great Recession, the land currently sits vacant. For 10 points each,

[10] This two word phrase refers to the power of local governments to seize private property for public use, such as the building of schools.

Answer: **eminent domain**

[10] The city of New London is about an hour's drive southeast of this state's capital city of Hartford.

Answer: Connecticut

[10] In 1965, the Supreme Court ruled in favor of Estelle Griswold, a Planned Parenthood director who argued that Connecticut's ban on this type of medicine was illegal. Foreshadowing *Roe v. Wade's* legalization of abortion, the Supreme Court argued that the ban on this type of health care violated the right to privacy.

Answer: **contraception** (accept **birth control** and any other equivalent that describes the *prevention* of pregnancy; prompt on “the pill;” do not accept “abortion”)

<HIST, AMER>>

El Greco painted a city from this country in his *View of Toledo*. For 10 points each, [10] Name this European country, home to artists Salvador Dalí and Pablo Picasso.

Answer: **Spain**

[10] The Infanta Margarita poses in the center of *Las Meninas*, a painting by this Spanish court painter.

Answer: Diego (Rodriguez de Silva y) **Velázquez**

[10] This artist depicted Spanish citizens under attack from Napoleonic soldiers in his painting *The Third of May, 1808*. His “Black Paintings” include a depiction of *Saturn Devouring His Son*.

Answer: Francisco (José de) **Goya** (y Lucientes)

<FA, VISUAL>>

These wars began at the First Battle of St. Albans, and they are named for the flowery badges of the competing factions. For 10 points each,

[10] Name these wars between the House of Lancaster and House of York. They ended with the rise of the House of Tudor.

Answer: War(s) of the **Roses**

[10] At the First Battle of St. Albans, the Yorkists captured the Lancastrian king, the sixth of this regnal name. The House of Tudor provided the seventh and eighth kings of this name.

Answer: **Henry** (accept Henry VI, VII, and/or VIII)

[10] Richard III died at this 1485 battle when the relatively-neutral Stanley family, seeing Richard in single combat, rushed in to assist Henry Tudor, who was then crowned King Henry VII. This decisive battle essentially ended the War of the Roses.

Answer: Battle of **Bosworth** Field

<HIST, EURO>>

This phenomenon travels through air at a speed of 343 meters per second at sea level. For 10 point each,

[10] Name this audible vibration whose loudness can be expressed on the decibel scale.

Answer: **sound**

[10] Unlike light, sound traveling through air is this type of wave, because the air molecules are displaced in the same direction the wave is moving.

Answer: **longitudinal** wave

[10] Dividing an object’s speed through air by the speed of sound yields this dimensionless number. The supersonic Concorde reached 2 and the Space Shuttle reached 25 for this number.

Answer: **Mach** number (accept **M** or **Ma**)

<SCI, PHYS>>

At the end of this play, the title character is lauded as “the noblest Roman of them all.” For 10 points each,

[10] Name this historical play by Shakespeare, in which the title Roman emperor is betrayed by senators led by Cassius and Brutus.

Answer: The Tragedy of **Julius Caesar**

[10] In the play, a soothsayer warns Caesar to “beware” this day, on which he is assassinated.

Answer: the **Ides of March** (accept clear equivalents, like **March 15**)

[10] In the play, this wife of Caesar also foresees his death and tries to stop him from going to the Senate.

Answer: **Calpurnia**

<LIT, BRIT>>

This god’s heart became the morning star after he threw himself on a funeral pyre. For 10 points each,

[10] Identify this Mesoamerican god, a feathered serpent who was the rival of Tezcatlipoca [tets-kaht-leepoh-kah].

Answer: Quetzalcoatl

[10] Quetzalcoatl [keht-sahl-koh-ah-tul] was a god of these people, who may have confused the arrival of

Hernan Cortes with the god’s return.

Answer: **Aztec**

[10] The Aztecs performed this religious practice in tribute to Huitzilopochtli [hoo-eets-ee-loh-pahk-tee].

When this practice was performed for Tlaloc, it required the death of crying children.

Answer: **human sacrifice** (accept clear equivalents; prompt on “sacrifice”)

<RMPSS, MYTH>>

It may not pay as much as a private sector job, but working in Washington does have its benefits. For 10 points each,

[10] This is the annual salary of the President, not counting benefits or expense accounts. Thanks to a pay raise in 1999, this number is currently double the amount that President Clinton earned.

Answer: $400,000 (four hundred thousand dollars)

[10] Congressional salaries are determined by Congress itself, and until 1992, Congress could simply vote itself a pay raise. This most recently ratified amendment to the U.S. Constitution requires Congressional pay raises to take effect during the next term.

Answer: **27**th Amendment to the U.S. Constitution

[10] In addition, members of Congress have a limited form of this privilege, the free use of the postal service for official business.

Answer: **frank**ing

<HIST, AMER>>

A small dog stands at the feet of this painting’s central couple, and a convex mirror in the background reflects the painter. For 10 points each,

[10] Name this painting, which shows the marital union of a man with a large hat and a woman in a green dress, a work by Jan Van Eyck [yahn van ike]

Answer: The **Arnolfini Wedding** (accept The **Arnolfini** (Double) **Portrait**; accept Giovanni **Arnolfini** and His Bride; accept any other answer including “Arnolfini” and the suggestion of a wedding or marriage)

[10] A mirror reflects a crowd of diners in the background of the painting *A Bar at the Folies-Bergère* [foh-LEE-bayr-JAYR], a work by this French realist, who also painted *Olympia*.

Answer: Édouard **Manet** (do not accept Monet)

[10] This popular American artist depicted himself looking in a mirror and sketching a much younger version of his face in a painting that appeared in the *Saturday Evening Post*.

Answer:Norman Perceval **Rockwell**

<FA, VISUAL>>

Milady de Winter is the subject of D’Artagnan’s affections in this novel. For 10 points each,

[10] Identify the novel in which Athos, Porthos, and Aramis first appear. Cardinal Richelieu is the antagonist of this novel.

Answer: The Three Musketeers (accept Les Trois Mousquetairs)

[10] *The Three Musketeers* was written by this French author, who also wrote *The Count of Monte Cristo* and *The Vicomte of Bragelonne: Ten Years Later*.

Answer: Alexandre **Dumas** pere

[10] This mysterious character titles the third section of *The Vicomte of Bragelonne*, and is the twin brother of Louis the XIV [fourteenth] of France.

Answer: The **Man in the Iron Mask** (accept; L’**Homme au Masque de Fer** or **Philippe**.**.** prompt; Eustache Dauger)

<LIT, EURO>>

This capital city, which lies on the Gulf of Gonave, was renamed in 1793 by Jean-Jacques Dessalines.

For 10 points each,

[10] Name this Caribbean city, which lay only 16 miles from the epicenter of a devastating January 2010 earthquake.

Answer: Port-au-Prince

[10] Port-au-Prince is the capital of this Caribbean nation, which borders the Dominican Republic.

Answer: **Haiti**

[10] Haiti and the Dominican Republic share this island, where Christopher Columbus' *Santa Maria* sank on his first voyage to the Americas.

Answer: Hispaniola

<GEO, GEO>>

Answer some questions about motherly goddesses, for 10 points each.

[10] This Greek equivalent of Vesta is actually a virgin, but was the goddess of family as well as the home and hearth. Answer: **Hestia**

[10] This Egyptian goddess is sometimes known as the mother of Ra. She is symbolized by a cow and represents motherhood.

Answer: **Hathor**

[10] The female member of the Egyptian creator pair, Nut [noot], represents this region. She is often painted blue, and arches over her husband, Geb, who represents the Earth.

Answer: **sky** (accept the **stars**, the **heavens**, or other equivalents)

<RMPSS, MYTH>>

Most carbon dioxide generated by the body is a product of this cellular respiration pathway. For 10 points each,

[10] Name this metabolic cycle that follows glycolysis and transfers the energy in acetyl-CoA [koh-ay] to electron-carriers like NADH and FADH2.

Answer: **citric acid** cycle (accept "**Krebs** cycle;" accept "**tricarboxylic acid** cycle" or "**TCA** cycle")

[10] The reactions of the citric acid cycle occur in the matrix of this eukaryotic organelle. This

“powerhouse” of the cell is where most ATP energy is produced.

Answer: mitochondria (accept mitochondrion)

[10] Unlike fermentation, the citric acid cycle is considered this type of process because it only occurs when free oxygen is available. Microbes of this type only grow in the presence of oxygen.

Answer: **aerobic** (do not accept “anaerobic”)

<SCI, BIO>>

When Nazi Germany invaded and conquered a country, they supported pro-German governments to rule the new territory. For 10 points each,

[10] Philippe Pétain [pay-TAAN], a former war hero at the Battle of Verdun, was appointed leader of this puppet government in southern France, which signed a peace treaty with the Germans in 1940.

Answer: **Vichy** France

[10] This country allied with the Germans under Miklos Horthy until 1944, when the Soviet army invaded and Hitler replaced Horthy with Ferenc Szalasi. Shortly thereafter, the Soviets began a siege of this country's capital, Budapest.

Answer: Kingdom of **Hungary**

[10] As the Germans invaded Norway in 1940, this man led a Nazi-supported coup; he later led Norway as a collaborationist state. After the war, he was convicted of high treason and executed, and his name remains a Norwegian synonym for "traitor."

Answer: Vidkun **Quisling**

<HIST, EURO>>

A minor character in this work is Clarisse McClellan, a freethinking teenager who is hit by a car. For 10 points each,

[10] Name this book with protagonist Guy Montag, named for what the author believed to be the temperature at which paper ignites.

Answer: **Fahrenheit 451**

[10] *Fahrenheit 451* was written by this science fiction author, who also wrote *Something Wicked This Way Comes*.

Answer: Ray Douglas **Bradbury**

[10] Bradbury also wrote this collection of short stories, which begins with a rocket turning an Ohio winter warm. The story “There Will Come Soft Rains,” an entry in this collection, depicts an automatic house after a nuclear holocaust.

Answer: The **Martian Chronicles**

<LIT, AMER>>

Newton originally wrote his second law as force equals the derivative of this quantity. For 10 points each,

[10] Name this quantity that is given by mass times velocity. It is conserved in all collisions.

Answer: linear **momentum** (do not accept “angular momentum”)

[10] A change in momentum is referred to as this, which is also equal to force multiplied by time. In rockets, the “specific” form of it times gravity gives exhaust velocity.

Answer: **impulse**

[10] While momentum is conserved in these collisions, kinetic energy is not. A bouncing ball undergoes these collisions because energy is continually lost until the ball comes to rest.

Answer: **inelastic** collisions

<SCI, PHYS>>

At a staff party at this network, newscaster and amateur magician Carl Kasell performed the "sawing legal affairs correspondent Nina Totenberg in half" illusion. For 10 points each,

[10] Name this radio network, which produces the news programs *Morning Edition* and *All Things Considered* and distributes *Fresh Air* and *Car Talk*.

Answer: **N**ational **P**ublic **R**adio

[10] In 2014, Carl Kasell retired as Scorekeeper for this NPR news quiz show, hosted by Peter Sagal. Even in retirement, though, Kasell continues to record voicemail messages as prizes for listeners of this show.

Answer: **Wait Wait...Don't Tell Me!**

[10] *Wait Wait...Don’t Tell Me!* welcomes panelists like writer and voice actor Tom Bodett, famous as the

voice of this American hotel chain’s slogan, “We’ll leave the light on for you.”

Answer: **Motel 6**

<TRASH, POP CULT>>

This man achieved his goals using satyagraha, or the force of truth. For ten points each:

[10] Name this leader who advocated nonviolence to help India achieve independence. In 1948, he was assassinated by Nathuram Godse.

Answer: Mohandas Karamchand **Gandhi** (or Mahatma Gandhi)

[10] In the early 1930s, Mahatma Gandhi fasted to gain civil rights for this lowest caste of Indian society, whom Gandhi called Harijan, or children of Vishnu.

Answer: **untouchable**s (accept **Dalit**)

[10] Gandhi began his political activism fighting for the civil rights of Indians in this country. Until 1994, this country was the home of the system of racial segregation called apartheid.

Answer: **South Africa**

<HIST, WORLD>>

The subject of this Franz Schubert lieder is addressed as "Maiden mild;" unusually, this song is not a setting of the prayer of the same name. For 10 points each,

[10] Name this song, whose Latin name translates to "Hail Mary."

Answer: Ave Maria

[10] Charles Gounod set the Ave Maria to music from this German composer's *Well Tempered Clavier*.

This Baroque composer's other religiously inspired works include a *Mass in B Minor*.

Answer: **J**ohann **S**ebastian **Bach** (prompt on "Bach")

[10] The Renaissance composer Josquin des Prez also wrote an Ave Maria in this song genre, which includes multiple voices singing in counterpoint on a sacred Latin text. Today, these pieces are often performed with the more secular, non-Latin madrigals.

Answer: **motet**s

<FA, AUDIO>>

Nucleic acids and proteins are biological examples of these molecules. For 10 points each, [10] Name these long-chained molecules composed of many monomers. Examples include nylon and polystyrene.

Answer: **polymer**s

[10] This polymer has an ethylene monomer with a substituted chlorine. It has recycling code 3 and is widely used in plastic piping.

Answer: **PVC** (accept **polyvinylchloride**; prompt on “polychloroethylene”)

[10] This synthetic polymer, discovered in 1907 by Leo Baekeland, was the world’s first widely used plastic. It is formed by reacting phenol with formaldehyde.

Answer: **Bakelite**

<SCI, BIO>>

The Stanford-Binet test measures this quantity, which follows a Normal distribution with mean of 100 and a standard deviation of 15. For 10 points each,

[10] Name this quantity, which, surprisingly, only has a moderate correlation with performance on standardized achievement tests.

Answer: **I**ntelligence **Q**uotient (prompt on "intelligence" alone)

[10] In statistics, this letter symbolizes the standard score, which gives the number of standard deviations a data point is away from the mean of a Normal distribution.

Answer: **z**-score

[10] A raw score of 130, corresponding to a z-score of 2.00, on the Stanford-Binet test is just shy of the required number to qualify for membership in this largest society for high-IQ individuals, founded in England in 1946.

Answer: **Mensa** International

<RMPSS, SOC SCI>>

James Weldon Johnson wrote one of these works “of an Ex-Colored Man.” For 10 points each,

[10] Name this type of literary work in which the author tells a story of his or her own life.

Answer: **autobiography** (prompt on “biography;” prompt on “memoirs” or similar)

[10] Marjane Satrapi wrote this autobiographical graphic novel about her life in Iran at the time of the Islamic Revolution. It takes its name from the ancient capital of the Persian empire.

Answer: **Persepolis**

[10] This former Maryland slave wrote three autobiographies, including a “Narrative” of his life.

Answer: Frederick **Douglass**

<LIT, AMER>>

This star is the alpha star in the constellation Canis Major, and it forms the Winter Triangle with Procyon and Betelgeuse. For 10 points each,

[10] Name this “dog star,” the brightest star in the night sky.

Answer: **Sirius** A

[10] Sirius is an example of this system, as it has a primary star and a companion star; Algol is another example. These systems exhibit gravitational influence within Roche lobes.

Answer: **binary** star system

[10] Sirius A can be found in this primary diagonal region of a certain diagram that relates absolute magnitude to temperature.

Answer: the **main sequence** of the Hertzsprung-Russell diagram (prompt on "Hertzsprung-Russel diagram" or "H-R diagram" alone)

<SCI, OTHER>>

In one work by this author, Polynices [pah-lee-nye-sees] raises an army against his brother Eteocles [eh-tay-oh-clees]. For 10 points each,

[10] Identify this ancient author of *Seven Against Thebes* whose *Oresteia* [oh-res-tye-ah] is the only fullyextant Greek trilogy.

Answer: **Aeschylus** [es-kill-us]

[10] The first part of the *Oresteia* is named for this man, the father of Orestes and Electra, who returned home only to be murdered by his wife Clytemnestra.

Answer: Agamemnon

[10] Agamemnon fought for 10 years at a war in this city. He sacrificed his daughter Iphigenia [ih-fih-jenah-ya] so his ships could sail to this city, though its walls only fell with the creation of a namesake wooden horse.

Answer: **Troy** (accept **Trojan**)

<RMPSS, MYTH>>

Six different flags have "flown over" Texas; that is, six different countries have existed on Texan land. For 10 points each,

[10] These two European rivals controlled Texan land; one ruled it for three centuries until the independence of Mexico, while the other briefly held a small portion of it as part of the Louisiana Territory. Name *both* European countries.

Answer: **Spain** and **France** (prompt on one answer alone)

[10] Texas gained its independence from Mexico in 1836, forming the independent Republic of Texas, which lasted until this U.S. President officially completed the annexation of Texas in December 1845.

Answer: James K(nox) **Polk**

[10] The sixth flag over Texas belonged to this nation, which Texas joined on March 2, 1861.

Answer: **C**onfederate **S**tates of **A**merica (accept **Confederacy** and other word forms)

<HIST, AMER>>

Answer the following about women in the Old Testament, for 10 points each.

[10] This niece of Mordecai became a Persian queen, and intervened with King Xerxes to save the Jewish people.

Answer: **Esther** (accept **Hadassah**)

[10] Deborah was the only woman known to hold this title as the leader of the Tribes of Israel. Other people to hold this position included Gideon.

Answer: **Judge**sof Israel (accept **shofet** or **shoftim**; do not accept “King” or similar answers) [10] This Judge harvested honey from the corpse of a lion and defeated many Philistines, but lost his incredible strength when his hair was cut by Delilah.

Answer: **Samson**

<RMPSS, REL>>

20. Spotify has used one of these processes named for Fisher and Yates to shuffle playlists, but Spotify users were unhappy with perceived lack of randomness in the shuffled lists. For 10 points each,

[10] Give this term for a finite list of step-by-step instructions to be carried out, usually by a computer program.

Answer: algorithm

[10] The Fisher-Yates algorithm randomly generates these rearrangements of the elements of a finite set.

Answer: **permutation**s (accept "n **P** r"; accept self-**bijection**s; do not accept or prompt on "combination") [10] The number of permutations of a set of n elements is equal to this function of *n*, written as "*n* exclamation point." This function of 5 is equal to 5 times 4 times 3 times 2 times 1.

Answer: **factorial**

<SCI, OTHER>>

Saul Bellow set many of his novels in this city. For 10 points each:

[10] His novel *The Adventures of Augie March* begins “I am an American, [this city] born.” Edna Ferber's

*So Big* is set in a Dutch suburb of this Illinois city, which has earned the nicknames "City of the Big Shoulders" and "The Windy City."

Answer: **Chicago**, Illinois

[10] This man wrote a poem titled after Chicago which calls it the “hog-butcher for the world.” He also wrote a poem in which fog comes in “on little cat feet.”

Answer: Carl August **Sandburg**

[10] This Chicago poet wrote “The Mother” and “We Real Cool”, which ends “We / jazz June. We / die soon.”

Answer: Gwendolyn Elizabeth **Brooks**

<LIT, AMER>>

The spike of this tool marks the center; then, widen the hinge to increase the radius, set the pen down to the paper, and rotate around completely to draw a perfect circle. For 10 points each,

[10] Name this mathematical tool, used with an unmarked straightedge in classical geometric construction.

Answer: unmarked **compass**

[10] Compasses can be fixed so that circles of the same radius can be drawn in different places, but in classical compass and straightedge construction, the compass "collapses" upon being picked up. This ancient Greek mathematician showed how to get around that issue in the second Proposition of his work Elements.

Answer: **Euclid** of Alexandria

[10] Some things are just impossible to do with a compass and straightedge, like trisecting any angle or doubling the volume of a cube. This third problem of antiquity, which begins with a given circle, is impossible because it would require the construction of the square root of pi.

Answer: **squaring the circle** (accept any description of "constructing a **square** that has the **same area** as the given circle")

<SCI, OTHER>>

Most of the poems contained in *Il Canzoniere* [kan-zoh-nee-ayr-ay] are written in this poetic form.

For 10 points each,

[10] Identify this poetic form that consists of fourteen lines. The Elizabethan version of this poetic form consists of three quatrains and a couplet.

Answer: **sonnet**

[10] This Italian author of *Il Canzoniere* names a type of sonnet. Many of his poems are addressed to the beautiful Laura.

Answer: **Petrarch** (accept Francesco **Petrarca**; accept **Petrarchan Sonnet**)

[10] This author wrote the sonnet “life is more true than reason will deceive.” He used unconventional grammar in poems like “anyone lived in a pretty how town” and wrote of the title “conscientious objector” in “i sing of Olaf glad and big.”

Answer: E(dward) E(stlin) **Cummings**

<LIT, OTHER>>

Answer the following about death in Asian religions, for 10 points each.

[10] Unlike Abrahamic religions, which prohibit or discourage this in favor of burial, this is the typical means of disposing of a body in religions with Indian origins, like Hinduism and Buddhism.

Answer: **cremation** (accept clear equivalents like **burning**)

[10] In Hinduism and Sikhism, the ashes of the deceased are usually placed in this type of location. The Punjab region, where Sikhism originated, is named for five of these watery features.

Answer: **river**

[10] After a Japanese corpse is cremated, the family picks out bones using these utensils. They are used to eat in Japan and China, but are never left standing vertically in rice because of funerary connotations.

Answer: **chopsticks** (accept **hashi** or **kuaizi**)

<RMPSS, REL>>

After failing to accomplish this event with a bomb, Nedeljko Cabrinovic [neh-dyell-koh kah-breenoh-vich] failed to commit suicide by swallowing weak cyanide and jumping into a five-inch deep river.

For 10 points each,

[10] Name this June 28, 1914 event that was accomplished by Gavrilo Princip. It triggered anti-Serbian demonstrations in Austria-Hungary, the July Crisis, and, eventually, World War I.

Answer: **assassination** (or **murder** or equivalents) of Franz **Ferdinand** (prompt on partial answer) [10] The assassination took place in this Austro-Hungarian city, now the capital of Bosnia and Herzegovina.

Answer: **Sarajevo**

[10] Princip was a member of this pro-Serbian terrorist group, which organized the attack of Franz Ferdinand's motorcade.

Answer: **Black Hand** (or **Unification or Death**; accept **Young Bosnia**)

<HIST, EURO>>

The “shocked” variety of this mineral is found in impact craters. For 10 points each,

[10] Name this mineral with a value of 7 on the Mohs hardness scale. Composed of silicon dioxide, this mineral is the second most abundant on Earth, after feldspar.

Answer: **quartz**

[10] Quartz exhibits this property, in which applying mechanical stress to a crystal produces a voltage. Rochelle salts also exhibit this property.

Answer: piezoelectricity

[10] Two brothers of this surname discovered piezoelectricity. One of those brothers, Pierre, also discovered radioactivity with his wife, Marie.

Answer: **Curie**

<SCI, OTHER>>

A 2014 article in *Vulture* explains and defends "schlock:" overwrought, melodramatic music where "bad taste becomes great art." For 10 points each,

[10] The article heaps praise on this 1981 song by Journey, even as it laughs at lyrics like "streetlight people / Livin' just to find emotion." This song was used for the iconic ending of *The Sopranos'* final episode, and is ranked third on *Vulture*’s list of the best schlock songs.

Answer: Don't Stop Believin' (accept Don't Stop Believing)

[10] The top spot is held by Judy Garland's 1961 performance "Over The Rainbow," which she had originally performed as Dorothy in this 1939 film.

Answer: The **Wizard of Oz**

[10] The runner-up is 1984’s “Purple Rain,” by this Minneapolis-born rocker with his band, the Revolution. Later in his career, he changed his name a number of times.

Answer: **Prince** Rogers Nelson (accept The **Artist Formerly Known as Prince**; if someone draws a reasonable Prince symbol and shows that to you, accept it. The Prince symbol is printed below for your convenience.)

<TRASH, POP CULT>>

For 10 points each, give the following about labor practices in 19th century America.

[10] Many Europeans migrated to the Americas by becoming this type of laborer, in which they exchanged several years of labor for their passage and were guaranteed their freedom at the end of the contract.

Answer: **indentured servant**s (accept word forms, like **indentured servitude**; prompt on servant) [10] After the abolition of slavery, many former slaves worked as this type of farmer, being allowed to work a former plantation in return for a portion of the harvest.

Answer: **sharecropper**s (accept word forms, like **sharecropping**; accept **tenant farmer**s and word forms, like **tenant farming**)

[10] The 1842 Massachusetts Supreme Court case *Commonwealth v. Hunt* ruled that these labor organizations were not subject to anti-conspiracy rules. One of these led by Samuel Gompers organized cigar makers and was part of the AFL.

Answer: labor **union**s

<HIST, AMER>>

The inverse of this quantity is electrical conductance, and a Wheatstone bridge can be used to find unknown values of this quantity. For 10 points each,

[10] Name this quantity, measured in Ohms, that describes how much a circuit element will oppose the flow of current. Answer: **resistance**

[10] In this circuit setup, the equivalent resistance is equal to the sum of the individual resistances, in contrast with the more complicated parallel circuit.

Answer: **series** circuit

[10] When discharging, this type of circuit will exponentially lose charge and current. It contains only resistors and capacitors, and the time constant equals resistance times capacitance.

Answer: **RC** circuit

<SCI, PHYS>>

In June 2014, this organization declared an expanded role and shortened its name to reflect a worldwide scope, though its territory remains limited to two war-torn nations. For 10 points each,

[10] Name this militant Sunni group that has taken control of much of northwestern Iraq and eastern Syria.

Answer: **Islamic State** of Iraq and Syria (accept **IS** or **ISIS**; accept **Islamic State** of Iraq and (the) Levant or **ISIL**; accept **ad-Dawlah l-ʾIslāmiyyah**)

[10] In that June 2014 announcement, ISIS leader Abu Bakr al-Baghdadi declared that ISIS was this type of state, representing and ruling over all Muslims worldwide. ISIS' claim to this type of state was roundly criticized by the global community.

Answer: caliphate

[10] In ISIS-controlled areas, non-Muslims have been given three choices: conversion, death, or the payment of this tax on non-Muslims. Akbar the Great abolished this tax for a period during the Mughal Empire.

Answer: **jizya**

<RMPSS, REL>>

Fans of two chariot racing teams, the Blues and the Greens, rioted in support of two condemned murderers in this event. For 10 points each,

[10] Name this 532 CE riot, which burned nearly half of the capital of the Eastern Roman Empire.

Answer: **Nika** Riots (accept equivalents for "riots," such as "revolts")

[10] The Nika Riots burned nearly half of this capital city, now known as Istanbul.

Answer: **Constantinople** (do not accept "Byzantium")

[10] This emperor almost fled from Constantinople during the Nika Riots, but his wife Theodora convinced him to stay.

Answer: **Justinian I** (accept **Justinian the Great**; prompt on "Justinian")

<HIST, WORLD>>

For 10 points each, give the following about *The Carnival of the Animal*s, a 14-movement suite for pianos and various other instruments.

[10] This Frenchman used his *Danse Macabre* as a theme in the “Fossils” movement of *The Carnival of the Animals*. This composer thought that *Carnival* was too frivolous and didn’t allow it to be published during his lifetime.

Answer: Camille **Saint-Saens**

[10] Saint-Saens did allow public performances of *Carnival*'ssecond-to-last movement, "The Swan," a solo for this large string instrument. Answer: **cello** [10] The movement "Tortoises" includes an unusually slow take on Offenbach's “Galop Infernal,” famously known as the music for this high-energy dance performed by kicklines at the Moulin Rouge and by the Rockettes.

Answer: **can-can**

<FA, AUDIO>>

For 10 points each, name these materials used in art.

[10] Architect Philip Johnson built a transparent house of this material. Dale Chihuly creates sculptures out of the "blown" kind of this material.

Answer: **glass**

[10] Benvenuto Cellini [cheh-lee-nee] made a salt cellar covered in this metal, which Gustav Klimt used to produce a shimmery effect in paintings like *The Kiss* and *Danae*.

Answer: **gold** leaf

[10] Christo and Jeanne-Claude produced works like Central Park's *The Gates, Surrounded Islands,* and *Wrapped Reichstag* with this material.

Answer: **cloth** (accept clear equivalents like **fabric**; accept **plastic** sheeting)

<FA, OTHER>>

Answer the following about the English Romantic literary movement, for 10 points each.

[10] This Romantic author of “She Walks in Beauty” and *Childe Harold’s Pilgrimage* also wrote the long poem *Don Juan* [don JOO-an]*.*

Answer: George Gordon, Lord **Byron**

[10] This offshoot of Romanticism shares its name with an elaborate architectural style. Horace

Walpole’s *Castle of Otranto* and Ann Radcliffe’s *Mysteries of Udolpho* are examples of this genre, which frequently includes elements of horror.

Answer: **gothic** fiction (accept **gothic** horror)

[10] Romanticism was a reaction against this movement, which favored the scientific method and skepticism. Writers of this movement included Voltaire, Rousseau, and Thomas Paine.

Answer: Age of **Enlightenment** (accept **Age of Reason**)

<LIT, BRIT>>

The Bight of Benin is an indentation of this body of water, whose coast became known as the "Slave Coast" for its role in the slave trade. For 10 points each,

[10] Name this gulf, in which the island nation of Sao Tome and Principe lies, and on whose shores lie the cities of Accra, Ghana and Libreville, Gabon.

Answer: Gulf of **Guinea**

[10] Lagos is both the largest city on the Gulf of Guinea and the largest city in this country. This country’s capital moved from Lagos in 1991.

Answer: **Nigeria**

[10] According to the theory of continental drift, the Gulf of Guinea now exists where this South American country once connected with Africa.

Answer: **Brazil**

<GEO, GEO>>

By the third law of thermodynamics, a perfect crystal at 0 kelvin will lack this quantity. For 10 points each,

[10] Name this quantity, symbolized *S* or Δ*S* [delta-S], that measures the amount of disorder in a system. Answer: change in **entropy**

[10] This law of thermodynamics states that entropy in an isolated system will always increase with time.

Answer: **second** law of thermodynamics

[10] This man’s equation relates entropy to the logarithm of the number of microstates. His namesake constant is the ideal gas constant over Avogadro’s number.

Answer: Ludwig **Boltzmann**

<SCI, CHEM>>

One play by this author ends with the sound of axes chopping down the title property. For 10 points each,

[10] Name this Russian playwright of *The Cherry Orchard* and *Three Sisters*.

Answer: Anton **Chekhov**

[10] A literary trope named for Chekhov states that if one of these objects is placed on stage, it must eventually be fired. Treplev kills himself with one of these weapons in *The Seagull*.

Answer: a **gun** (accept **rifle**)

[10] In a scene from this Chekhov play, the title character attempts to shoot Serebyakov [say-reh-byahkov] with a pistol. It was reworked from his earlier play *The Wood Demon*.

Answer: **Uncle Vanya** (accept **Dyadya Vanya**)

<LIT, EURO>>

This set of documents was discovered by Daniel Ellsberg, who blew the whistle on their contents by publishing them in the *New York Times* in 1971. For 10 points each,

[10] Name this collection of papers that detailed the history of U.S. military intervention in Southeast Asia. Their leaking showed that the government extensively lied to the public about their actions.

Answer: **Pentagon Papers**

[10] The Pentagon Papers detailed the history of this war. Lyndon Johnson sent American troops into this war after the Gulf of Tonkin incident, and it ended with the 1975 fall of Saigon.

Answer: **Vietnam** War

[10] This President hired a group of so-called "Plumbers" to harass Ellsberg after he leaked the Pentagon Papers. The group CREEP sought to get this President re-elected by breaking into Democratic headquarters at the Watergate hotel.

Answer: Richard Milhous **Nixon**

<HIST, AMER>>

Mythological figures don’t always get along. For 10 points each,

[10] Name this legendary king of Uruk who, after rejecting the proposal of Ishtar, is attacked by the Bull of Heaven in his namesake epic.

Answer: **Gilgamesh**

[10] The earliest tablets that tell the story of Gilgamesh were found in the ruins of this ancient city, which contained a legendary hanging garden.

Answer: **Babylon** (accept word forms like **Babylonia**)

[10]The sea dragon Tiamat was slain by this chief god of the Babylonian pantheon. He would later defeat Kingu to claim the Tablets of Destiny.

Answer: **Marduk**

<RMPSS, MYTH>>

During the 1950s, public swimming pools were often closed to prevent the spread of this disease. For 10 points each,

[10] Name this illness that mainly infects children, destroying motor neurons in the spinal cord which causes paralysis. Franklin D. Roosevelt notably survived this disease.

Answer: **polio**myelitis (prompt on “infantile paralysis”)

[10] In 1955, this physician announced the development of the first successful polio vaccine, which he refused to patent.

Answer: Jonas **Salk**

[10] In cases where the disease paralyzed the diaphragm muscle, polio patients might spend the rest of their lives inside these large, sealed chambers that force air into the chest.

Answer: **iron lung** (accept **negative pressure ventilator**)

<SCI, BIO>>

For 10 points each, answer the following about a mythical singer from Thrace.

[10] This man descended into the Greek underworld to retrieve his dead wife, Eurydice [yoo-rih-dih-see], but lost her when he looked behind him to see if she was following.

Answer: **Orpheus**

[10] After losing Eurydice a second time, Orpheus unsuccessfully begged this underworld ferryman to allow him to cross back over the river Styx to see his wife again.

Answer: **Charon**

[10] In order to board the ferry to the underworld, Charon had to be given one of these. These items were placed in the mouth of the dead to pay their fare

Answer: **coin**s (Accept **obolus**, **danake**, or **drachma**)

<RMPSS, MYTH>>

This woman met her teacher and lifelong friend after a meeting with Alexander Graham Bell when she was six years old. For ten points each:

[10] Name this deaf and blind girl who was taught language and speech by Anne Sullivan.

Answer: Helen Adams **Keller**

[10] In her autobiography *The Story of My Life*, Keller wrote that learning this word opened up language for her. Her learning of this word was the focus of a memorable scene in the movie *The Miracle Worker*.

Answer: **water**

[10] Keller became the first deaf and blind person to earn a Bachelor degree when she graduated from this college for women. This member of the Seven Sisters merged with Harvard in 1999.

Answer: **Radcliffe** College

<LIT, AMER>>

This holy book is divided into 114 chapters called suras. For 10 points each,

[10] Name this holy book that was revealed to Muhammad by the angel Jibril [jee-breel]. It is the primary religious text of Islam.

Answer: **Quran**

[10] A Muslim who has become a hafiz must have done this with the text of the Quran.

Answer: **memorize**d it (accept obvious equivalents such as “**learned it** from **memory**”)

[10] The Quran frequently mentions these invisible creatures made of “smokeless fire.” One of these creatures, Iblis [ee-bliss], refused to bow to Adam and became Shaitan, the Islamic version of the Devil.

Answer: **jinn** (accept **genie**s)

<RMPSS, REL>>

Enjolras [on-johl-RAH] leads the Friends of the ABC in this novel. For 10 points each,

[10] Identify this novel, in which Jean Valjean [jahn val-JAHN] is pursued by Inspector Javert [zhah-

VAYR]. Valjean raises Fantine’s daughter Cosette after Fantine dies in this novel.

Answer: Les Misérables

[10] This French author wrote *Les Misérables* [lay mis-ay-RAHB]. He wrote about the bell-ringer Quasimodo and the gypsy Esmeralda in *The Hunchback of Notre Dame*.

Answer: Victor Marie **Hugo**

[10] In *Les Misérables*, this plucky young boy leaves the barricade to collect rifle cartridges and is shot by the French National Guard.

Answer: **Gavroche** Thénardier (prompt on Thenardier)

<LIT, EURO>>

These events may occur when the object falls into shadow or simply when another object passes between the viewing area and the object. For 10 points each,

[10] Name this event, in which an astronomical body is obscured from view. On Earth, the lunar and solar types of these events create remarkable visual displays.

Answer: **eclipse** (accept **transit**)

[10] Any event where three or more astronomical bodies lie along a straight line, as during an eclipse or a transit, is referred to by this six letter word. The moon, Sun, and Earth experience these events roughly twice a month, causing spring tides on Earth.

Answer: **syzygy**

[10] Eclipses of the Sun or Moon can be seen on Earth, but not on every planet. Name both of the two planets in our Solar System which cannot view an eclipse.

Answer: **Mercury and Venus** (prompt on partial answer)

<SCI, OTHER>>

In the game 2048, tiles with the number 2 or 4 are randomly generated; when two tiles of the same number combine, they combine into a single tile with the sum of the original tile. For 10 points each,

[10] Every tile in the game will display one of these numbers. The smallest examples of these numbers -- and, therefore, the earliest numbers seen in the game -- are 2, 4, 8, 16, and 32.

Answer: (positive integer) **power**(s) **of 2** (do not accept or prompt "integers" or "even integers;" prompt on “power(s)”)

[10] Because every power of 2 is divisible by 2, every power of 2 is congruent to zero with respect to 2 in this system of arithmetic which distinguishes numbers based on their remainder when divided by a given number.

Answer: **Mod**ular arithmetic (accept word forms; accept "**integers mod**(ulo) **2**;" accept **Z sub 2** or **Z mod 2Z**)

[10] You will never see an odd tile in the game, because the set of even numbers has this property under addition -- meaning that the sum of 2 even numbers will always be even. Another term of this name refers to intervals that include their endpoints.

Answer: (operational) **closure** (accept word forms)

<SCI, OTHER>>

For 10 points each, give the following about the aftermath of the 405 BCE Battle of Aegospotami [aygus-pah-tuh-mee].

[10] At Aegospotami, Lysander led a rout of the Athenian navy, thus essentially ending this war over control of the Greek mainland.

Answer: (Second) **Peloponnesian** War

[10] Lysander was an admiral from this militaristic Greek city-state, which was traditionally more of a power in ground combat. After the Peloponnesian War, this city-state installed the Thirty Tyrants in Athens.

Answer: Sparta (or Lacedaemon)

[10] In addition to Sparta's installing of the Thirty Tyrants, they insisted that Athens tear down a set of these defensive structures. Sparta itself lacked these structures, claiming that their army itself was protection enough.

Answer: city **wall**s (accept the **Long Wall**(s))

<HIST, OTHER>>

For 10 points each, give the following about Sergei Diaghilev’s Ballets Russes [“ballet” ROOS]. [10] The Ballets Russes performed numerous works by this Russian composer, including *Pulcinella*, *Petrushka*, *Firebird*, and the controversial *Rite of Spring*.

Answer: Igor **Stravinsky**

[10] The Ballets Russes’ production of Stravinsky’s *Pulcinella* featured sets and costumes designed by this Spanish cubist, the creator of *Les Demoiselles d'Avignon* [lay day-mwah-zellz da-vee-nyon].

Answer: Pablo (Ruiz y) **Picasso**

[10] One of the Ballets Russes’ most prolific choreographers, Vaslav Nijinsky, was one of few men known for using this ballet technique. This technique requires special shoes, as all of the body’s weight is supported on the tips of the dancer’s toes.

Answer: (en) **pointe** (accept elaborations, such as **pointe** work)

<FA, OTHER>>

This man's wife notes that he "never made a lot of money," but "he's a human being, and a terrible thing is happening to him. So attention must be paid." For 10 points each,

[10] Name this man. At the beginning of the play in which he appears, he describes driving off the side of the road on his way to work.

Answer: **Willy** **Loman** (accept either underlined name)

[10] Willy Loman believes himself to be "worth more dead than alive" and commits suicide for insurance money at the end of this 1949 play.

Answer: Death of a Salesman

[10] This author of *The Crucible* wrote *Death of a Salesman*.

Answer: Arthur Asher **Miller**

<LIT, AMER>>

Harry Truman visited this city nearly a dozen times as President, establishing a "Little White House." For 10 points each,

[10] Name this southernmost city of the continental United States. The 2,300-plus miles of U.S. Route 1 run from Fort Kent in Maine south through Miami to this city.

Answer: **Key West**

[10] Even though Key West is geographically closer to Havana, Cuba, than it is to Miami, it’s still part of this U.S. state.

Answer: **Florida**

[10] On April 23, 1982, Key West protested Border Patrol actions relating to Cuban immigration by seceding from the United States, forming this "republic" inspired by a beach shell. This republic declared war, surrendered within a minute, then applied for one billion dollars of foreign aid.

Answer: **Conch** Republic

<GEO, GEO>>

A 1950s government led by this party saw Minister of Housing Harold Macmillan lead a construction boom and Foreign Secretary Anthony Eden support a coup d'etat in Iran. For 10 points each,

[10] Name this British political party, which defeated the Labour Party of Clement Attlee in 1951 elections.

Answer: **Conservative** Party (prompt on Tories)

[10] This man became Prime Minister for a third time in 1951, having led the United Kingdom during much of World War II.

Answer: Sir Winston Leonard Spencer-**Churchill**

[10] During his third Prime Ministership, Churchill sent British troops to capture Dedan Kimathi and put down this Kikuyu uprising in colonial Kenya.

Answer: **Mau Mau** Rebellion (or Uprising, Revolt, or other equivalents)

<HIST, WORLD>>

These particles were first theorized by Murray Gell-Mann. For 10 points each,

[10] Name these elementary particles that come in six flavors - up, down, charm, strange, top, and bottom.

Answer: **quark**s

[10] This particle, discovered by James Chadwick in 1932, contains one up quark and two down quarks; thus, it has 0 charge. Some of them can be found along with protons in the nucleus.

Answer: **neutron**s

[10] This class of particles contain a quark-antiquark pair. An example of one is J/psi [jay-sigh], which contains one charm quark and one charm antiquark.

Answer: **meson**s

<SCI, PHYS>>

This character appears as a child in a play in which her half-brother, who is also her father, mourns her future after he blinds himself. For 10 points each,

[10] Identify this sister of Ismene [is-may-nay], who kills herself after trying to bury her brother outside Thebes in her namesake play.

Answer: **Antigone**

[10] Antigone [an-tih-goh-nee] briefly appears at the end of this play, in which the title character solves the riddle of the sphinx and fulfills a prophecy by killing his father and marrying his mother.

Answer: **Oedipus** Rex (accept **Oedipus** the King)

[10] *Antigone* and *Oedipus Rex* were both written by this Greek author, who also wrote about Oedipus’s death in *Oedipus at Colonus.*

Answer: Sophocles

<LIT, OTHER>>

This man's Twitter description simply says "You know... the 'Eat It' Guy." For 10 points each,

[10] Name this polka musician, whose 2014 album *Mandatory Fun* features the songs "Handy" and "Word Crimes," which are parodies of Iggy Azalea and Robin Thicke songs.

Answer: Weird Al **Yankovic** (or **Weird Al**)

[10] Weird Al released eight music videos for *Mandatory Fun*, beginning with this parody of Pharell Williams' song "Happy." This music video features Jack Black wearing a glittery fanny pack backwards.

Answer: **Tacky**

[10] A 1992 Weird Al parody includes the lyrics "Now I'm mumblin'/ and I'm screamin'" and "It's hard to bargle nawdle zouss/with all these marbles in my mouth." You can give either the name of the Weird Al song title OR the title of the song it's parodying.

Answer: Smells Like Nirvana OR Smells Like Teen Spirit (accept either or both)

<TRASH, POP CULT>>

16. Excitable cells are needed to transmit the nerve impulses of this event. For 10 points each,

[10] Name this all-or-nothing event that results from depolarization of the neuron membrane. Pufferfish venom can turn people into “zombies” by inhibiting these events.

Answer: action potential

[10] The influx of the sodium ion causes an action potential; after which an outward flux of an ion of this other alkali metal with atomic symbol K.

Answer: potassium

[10] An action potential triggers this type of movement in muscles. Relaxation follows this movement.

Answer: **contraction**

<SCI, BIO>>

This document is wary of European "ambition" and "rivalship," noting "It is our true policy to steer clear of permanent alliances with any portion of the foreign world." For 10 points each,

[10] Name this letter, published in 1796, which opens by announcing that its author would not seek a third term as President.

Answer: George **Washington's Farewell Address** (there is no official title to this work, so accept any equivalent that describes "the **farewell letter** (or **speech**) written by George **Washington**;" prompt on partial answers, such as "Washington's speech" or "Farewell Address" alone; accept reasonable equivalents to "farewell" in all of the above directions)

[10] Washington's Farewell Address also warns against the danger of rival political parties. During Washington's presidency, the Federalist Party had been founded by Alexander Hamilton and this rival party had been founded by Thomas Jefferson.

Answer: **Democratic-Republican** Party (do not accept or prompt on partial answer)

[10] Washington's worries about party conflict came true in the Election of 1796, which Jefferson lost to this Federalist, who became the second U.S. President.

Answer: **J**ohn **Adams** (prompt on Adams; do not accept John Quincy Adams)

<HIST, AMER>>

For 10 points each, name these laboratory separation methods.

[10] The Büchner [BYOUK-ner] type of this piece of lab equipment is often used in vacuum filtrations. Its simpler version is conical and eases the transfer of samples to containers with small necks.

Answer: **funnel**

[10] This method of separation involves heating a solution of components with different boiling points. This process does not work on azeotropic solutions.

Answer: distillation

[10] "Thin-layer" and "column" are versions of this separatory method which uses a mobile phase flowing past a stationary phase to separate solution components.

Answer: chromatography

<SCI, CHEM>>

Identify the following people related to the writing of *Frankenstein,* for 10 points each.

[10] This author of *The Vindication of the Rights of Woman* died giving birth to her daughter, Mary Godwin, who would go on to write *Frankenstein.*

Answer: Mary Wollstonecraft

[10] This poet of “Ozymandias” and “To a Skylark” brought the young Mary Godwin to the villa where she was inspired to write *Frankenstein.* He later married her.

Answer: **P**ercy Bysshe **Shelley**

[10] The same summer and storytelling that inspired Mary Shelley inspired John Polidori to write about this kind of creature, though Bram Stoker’s *Dracula* concerns a more famous creature of this type.

Answer: **vampire**

<LIT, BRIT>>

This kind of artwork includes the *Mona Lisa, Blue Boy*, and one "of Madame X." For 10 points each,

[10] Name this type of painting that depicts a likeness of a person. A "self" kind of these paintings is the artist’s depiction of himself or herself.

Answer: self-**portrait**

[10] This man painted portraits of many American leaders including George Washington. His portrait of Washington appears on the American one-dollar bill.

Answer: Gilbert **Stuart**

[10] This man created many paintings featuring Napoleon, including *The Coronation of Napoleon, Napoleon Crossing the Alps,* and *Napoleon in His Study*. This man also painted an idealized *Death of Marat.*

Answer: Jacques-Louis **David** [zhak loo-EE dah-VEED]

<FA, VISUAL>>

This economic concept can be illustrated by spending a Saturday playing quizbowl, as that's one fewer day you could spend doing homework, working a part-time job, or relaxing with friends. For 10 points each,

[10] Give this two word term that describes the value lost in a trade-off by choosing to spend resources on a different option.

Answer: **opportunity cost**

[10] Opportunity cost is often described in economics by the food-related catchphrase that "there is no such thing as" one of these.

Answer: a **free lunch**

[10] Someone who does receive a lunch at no cost is said to be a "free rider," benefiting from someone else's paying of the cost of the lunch. This "tragedy" is a scenario where free lunches, or other public goods, are exploited by individuals who don't replenish whatever resource is providing them.

Answer: tragedy of the **commons**

<RMPSS, SOC SCI>>

The gravitational form of this quantity is equal to mass times little G times height. For 10 points each,

[10] Name this type of energy, symbolized U, that results from object’s position in a force field. A roller coaster at the top of a hill converts this energy into kinetic energy when it goes down.

Answer: **potential** energy

[10] The negative change in potential energy is equal to this quantity. This quantity also equals force times distance. Answer: **work**

[10] The potential energy stored in this object is one-half times the namesake constant times displacement squared. When a mass is attached to one, it can undergo simple harmonic motion.

Answer: **spring** (accept answers involving **elastic** material)

<SCI, PHYS>>

In one of this woman's novels, the schoolteacher from Sweet Home comes to retrieve a slave woman and her children. For 10 points each,

[10] Name this author of *Song of Solomon* who was the last American to win the Nobel Prize in Literature. She wrote about the escaped slave Sethe in *Beloved*.

Answer: Toni **Morrison** (or Chloe **Wofford**)

[10] In this Harriet Beecher Stowe novel, the title character is almost set free by Augustine St. Clare before he falls into the hands of Sambo and Quimbo on Simon Legree's plantation.

Answer: **Uncle Tom's Cabin**

[10] Jim escapes from the Widow Douglas and Miss Watson and sails on a raft with the mischievous title character in this Mark Twain novel.

Answer: The Adventures of **Huck**leberry **Finn**

<LIT, AMER>>

At the end of the last ice age, many giant examples of this animal group like the woolly mammoth, ground sloth, and saber-toothed tiger went extinct. For 10 points each,

[10] Name this class of animals characterized by three middle ear bones, hair, and milk production by namesake glands. Rodents are the largest group within this class.

Answer: **Mammal**ia

[10] The order Chiroptera, the bats, is the most widespread mammal group after rodents, probably because they are the only mammals that can truly perform this self-powered type of movement.

Answer: **fly**ing (also accept **flight**)

[10] Perissodactyla mammals, like horses and rhinos, and Artiodactyla, like sheep and pigs, are distinguished by having an odd or even number of these body parts.

Answer: **toes**

<SCI, BIO>>

This ruler defeated King Guthrum at Edington and signed the Treaty of Wedmore. For 10 points each,

[10] Name this English king who defended his country from invading forces at the Battle of Ashdown. He is the only English king to be known as “the Great.”

Answer: **Alfred** the Great

[10] The aforementioned battles were chronicled by Bishop Asser’s biography of Alfred the Great; an edited edition of that biography inserted an uncited claim that Alfred founded this oldest English university.

Answer: University of **Oxford**

[10] Alfred was officially King of this Anglo-Saxon kingdom in south Britain, which later merged with Mercia as part of the general unification of England.

Answer: **Wessex**

<HIST, EURO>>

Identify the following British women writers, for 10 points each.

[10] This author wrote “How do I love thee? Let me count the ways” in her collection *Sonnets from the*

*Portuguese.* She was married to the author of “My Last Duchess,” Robert.

Answer: Elizabeth Barrett **Browning**

[10] This author wrote about Elizabeth Browning’s dog in *Flush,* but is better known for writing *Mrs.*

*Dalloway* and *A Room of One’s Own.*

Answer: (Adeline) Virginia **Woolf**

[10] In *A Room of One’s Own,* Woolf makes reference to this author of *Middlemarch.* She also wrote *The Mill on the Floss* and *Silas Marner,* though she was forced to use a male pen name.

Answer: **G**eorge **Eliot** (accept Mary Ann **Evans**)

<LIT, BRIT>>

Answer some questions about the mythology of a particular island nation, for 10 points each.

[10] Saint Patrick legendarily drove the snakes out of this island, which serves as the setting of the book of legends known as the *Ulster Cycle*.

Answer: **Ireland** (accept **Éire**; accept **Airlann**)

[10] In the *Ulster Cycle*, the forces of Queen Medb [mayv] are fought off at the Cattle Raid of Cooley by this heroic warrior.

Answer: **Cú Chulainn** [Koo-Kull-In] (accept **Sétanta**)

[10] In another Irish cycle, the Salmon of Knowledge is cooked by this fair-haired hunter, who accidentally attains enlightenment when the fish’s oil dripped onto his thumb.

Answer: **Fionn mac Cumhaill** [“Finn McCool”] (accept **Deimne**)

<RMPSS, MYTH>>

Douglas Adams compared this Johann Sebastian Bach musical suite's beauty to that of fractals, noting that these are "what he wrote when he was happy." For 10 points each,

[10] Name this collection of six orchestral works that Bach wrote for Christian Ludwig, who was Margrave of the principality for which these works are named.

Answer: **Brandenburg** concertos (or **BWV 1049-1056**)

[10] It is believed that Bach himself played this instrument at the premiere of the fifth *Brandenburg Concerto*, which features a lengthy, challenging cadenza for it. This keyboard instrument plucks the internal strings, rather than striking them as a piano does.

Answer: **harpsichord** (prompt on clavier; do not accept clavichord or piano)

[10] The first and third movements of *Brandenburg No. 5* are both marked for this tempo, a fast, lively speed of roughly 120 beats per minute, slower than vivace.

Answer: **allegro**

<FA, AUDIO>>

For 10 points each, give the following about containment, the official US policy for stopping the spread of communism.

[10] Containment of communism was necessary according to this theory, which held that if one nation fell to communism, its neighbors would be the next countries to go red.

Answer: **domino** theory (or **domino** effect or other equivalents)

[10] This President's namesake doctrine threatened US intervention in nations where communism looked like it might take hold. His policy provided money to Greece and Turkey and sent troops to Korea.

Answer: Harry **Truman**

[10] This President, who served between Ford and Reagan, tried to shift from containment to a more pacifist foreign policy until the Soviets invaded Afghanistan in 1979. He won a Nobel Peace Prize in 2002, in part for his work with Habitat for Humanity.

Answer: Jimmy **Carter**

<HIST, AMER>>

In one scene of this novel, Lucas de Beaumanoir [boh-man-WAHR] accuses Rebecca of witchcraft.

For 10 points each,

[10] Identify this novel, which sees Cedric of Rotherwood banish the title knight when he falls in love with Rowena.

Answer: **Ivanhoe**

[10] *Ivanhoe* is a work by this author, who wrote about Frank Osbaldistone in *Rob Roy.*

Answer: Sir Walter **Scott**

[10] In *Ivanhoe*, Locksley is revealed to be this legendary Englishman who, accompanied by Friar Tuck and Little John, robs from the rich to feed the poor.

Answer: **Robin Hood**

<LIT, BRIT>>

ICE tables can be used for calculations involving reactions in this state. For 10 points each, [10] Name this condition in which a forward reaction occurs at the same rate as the reverse reaction. Reactions in this condition are depicted with two half-headed arrows.

Answer: **equilibrium**

[10] This principle of equilibrium chemistry states that when a reaction experiences a change in pressure, temperature, concentration, or volume, it will shift to counteract that change.

Answer: **Le Chatelier’s** [luh sha-tell-YAY’s] principle

[10] While adding one of these may increase reaction rate, it won’t change the equilibrium or equilibrium constant, as it increases the reverse reaction rate just as much as the forward rate.

Answer: **catalyst**

<SCI, CHEM>>

Identify the following about East Asian literature, for 10 points each.

[10] This author wrote about the Empress Teishi in *The Pillow Book* and was a rival of Lady Murasaki in 11th century Japan.

Answer: **Sei** Shonagon (prompt on "Shonagon")

[10] This Tang-dynasty Chinese poet wrote “Drinking alone by moonlight,” “The River Merchant’s Wife,” and three poems addressed to his contemporary, Du Fu.

Answer: **Li** Bai (accept **Li** Po or **Li** Bo)

[10] The Japanese poet Basho was the master of this kind of poem. *The Seashell Game* included sixty examples of this seventeen-syllable, three-line type of Japanese poem.

Answer: **haiku**

<LIT, OTHER>>

James Whistler depicted this kind of woman in his painting *Arrangement in Grey and Black No.1*. For 10 points each,

[10] Name this member of a family, a woman who has children. One of these women washes a little girl's foot in a painting titled *The Child's Bath*.

Answer: **mother**

[10] This American Impressionist painted many mothers and children in works like *Maternité*, *The Boating Party*, and *The Child's Bath*.

Answer: Mary Stevenson **Cassatt**

[10] An iconic photo depicting farm worker Florence Owens Thompson with two of her children, titled *Migrant Mother*, was taken by Dorothea Lange to capture the agricultural suffering of this Great Depression-era event.

Answer: **Dust Bowl**

<FA, VISUAL>>

This statistical quantity can be calculated by taking the average of the squared elements of a data set, minus the square of the average of the data set. For 10 points each,

[10] Name this measure of how spread out a data set is, measured in the square of the unit of the original set. For that reason, the standard deviation, which is the square root of this quantity, is more commonly used in analysis.

Answer: (population or sample) **variance**

[10] This other measure of spread is less informative than variance or standard deviation, but it is far easier to calculate; simply take the largest value in the set, minus the smallest value in the set.

Answer: **range**

[10] The range may be an inaccurate measure of how spread out a data set is if the set includes a point that is very large or very small compared to the rest of the set; this term describes such a point.

Answer: **outlier**

<SCI, OTHER>>

The diverting of water from the Amu Darya and Syr Darya for irrigation caused this large body of water to start shrinking rapidly in the 1960s. For 10 points each,

[10] Name this body of water, once one of the largest lakes in the world, found between Kazakhstan and Uzbekistan.

Answer: **Aral** Sea

[10] The Karakum Canal diverted the Amu Darya to irrigate this crop; as a result, Uzbekistan is the world’s sixth largest producer of this textile, which is also prominently grown in Egypt.

Answer: **cotton**

[10] Uzbekistan is east of, but does not have a shore on, this largest lake in the world, which was once fed by the Amu Darya.

Answer: **Caspian** Sea

<GEO, GEO>>

Leaders of this movement founded Oberlin College in Ohio; in 1858, a mob of Oberlin residents sieged a hotel to rescue John Price, a runaway slave who had been arrested under the Fugitive Slave Act.

For 10 points each,

[10] Name this movement to end the American practice of slavery, advocated by the newspaper *The Liberator* and by speakers like former slave Sojourner Truth.

Answer: **abolitionism** (accept word forms)

[10] This man founded and published *The Liberator* for 36 years.

Answer: William Lloyd **Garrison**

[10] In 1854, Garrison publicly burned a copy of this document, calling it a "Covenant with Death." The final issue of *The Liberator* celebrated the end of slavery because this document had been amended to ban slavery.

Answer: U.S. **Constitution**

<HIST, AMER>>

The Superconducting Super Collider was to be the world’s largest particle accelerator, but it was canceled over cost concerns in 1993. For 10 points each.

[10] The SSC was to be built near Waxahachie in this U.S. state. It's also home to the Johnson Space Center, which serves as Mission Control for American spaceflight.

Answer: **Texas**

[10] Congress debated whether the government could afford both the SSC and this other joint project between NASA and the space agencies of Russia, Japan, Canada, and Europe. Chris Hadfield served as its commander in 2013.

Answer: **I**nternational **S**pace **S**tation

[10] The SSC would have had five times the collision energy of the Large Hadron Collider, built near Geneva by this European organization.

Answer: **CERN** (or the **European Organization for Nuclear Research**)

<SCI, OTHER>>

In Christian lore, God acts directly to influence the lives of many biblical figures. For 10 points each,

[10] Give this name for divine acts, often used to restore faith or reward the faithful. Jesus performed several of these acts, including turning water into wine and bringing Lazarus back to life.

Answer: **miracle**s

[10] This Jewish prophet interpreted a sign from God with the writing on the wall during Belshazzar’s feast. This man was thrown into the lion’s den, but escaped unharmed.

Answer: **Daniel**

[10] Moses is told to take off his shoes before he approaches this object, from which he hears the voice of God. He is told to talk to Pharaoh and given several miracles to perform.

Answer: **burning bush** (accept clear equivalents)

<RMPSS, REL>>

Operation Paul Bunyan used helicopters, bombers, and an offshore aircraft carrier to support the removal of a tree from this region near Panmunjom. For 10 points each,

[10] Name this no-man's-land along the 38th parallel. It was created in a July 1953 armistice.

Answer: **Demilitarized Zone** (or **DMZ**) (accept, but do not otherwise reveal, any additional information that describes the DMZ as being between North and South Korea)

[10] The DMZ was created at the end of this war. At various points in this war, the capitals of Seoul and Pyongyang were each captured by enemy forces.

Answer: **Korean** War

[10] This American general led an offensive into North Korea to the Yalu River that triggered Chinese involvement in the war. President Truman removed him from command for insubordination in 1951.

Answer: Douglas **MacArthur**

<HIST, WORLD>>

This term is most often associated with Vishnu, who has had ten of them. For 10 points each:

[10] Name this Hindu term for a deity's descent to Earth, as well as the form they take for that descent.

Answer: **avatar**

[10] The first avatar of Vishnu is Matsya, a giant one of these animals. In this form, he saves Manu, the first man, from the great flood.

Answer: **fish**

[10] Vishnu’s eighth avatar is this blue-skinned hero of the *Bhagavad Gita*, the charioteer of Arjuna who is venerated by a certain “Hare” [hah-ray] movement in the US.

Answer: **Krishna**

<RMPSS, MYTH>>

The title event of this poem happens because “Someone had blundered.” For ten points each:

[10] Name this poem commemorating the Battle of Balaclava, in which six hundred soldiers rode “Half a league, half a league/ Half a league onward” “Charging an army/ While all the world wondered.”

Answer: The **Charge of the Light Brigade**

[10] This British poet wrote *The Charge of the Light Brigade*. He wrote "'Tis better to have loved and lost

/ Than never to have loved at all” in his poem *In Memoriam*.

Answer: Alfred, Lord **Tennyson**

[10] This author condemned poor treatment of British veterans in his poem *The Last of the Light Brigade*. He won a Nobel Prize in Literature for works like *The Jungle Book* and the novel *Kim*.

Answer: Rudyard **Kipling**

<LIT, BRIT>>

In a classic episode of Monsterpiece Theatre, the play "Waiting for Elmo" is performed, in which Grover and Telly Monster represent these two characters standing near a tree. Elmo doesn't arrive, so the tree complains that the play doesn't make any sense and walks away. For 10 points each,

[10] Name these two main characters from Samuel Beckett's play *Waiting for Godot*.

Answer: **Vladimir** and **Estragon** (accept in either order; accept **Didi** and **Gogo** in either order)

[10] This children's TV show has featured Muppets in pop culture parodies like *Upside Downton Abbey*, *Preschool Musical*, and the aforementioned *Monsterpiece Theatre*, which is introduced by Cookie Monster.

Answer: **Sesame Street**

[10] On a different TV show, Vladimir and Estragon are fish owned by Mr. Ratburn, the 3rd grade teacher of Francine, Buster, and this title aardvark.

Answer: **Arthur** Read (prompt on “Read”)

<TRASH, POP CULT>>

This nation's economy is dominated by agriculture, as the Meghna, Brahmaputra, and Padma Rivers form the Ganges Delta, which makes up roughly half of this country's area. For 10 points each,

[10] Name this country on the Bay of Bengal, whose capital is Dhaka.

Answer: **Bangladesh**

[10] Bangladesh was known as the "East" region of this country after a 1947 partition; Bangladesh gained its independence from this country in 1971.

Answer: **Pakistan**

[10] Bangladesh is bordered on the east and west by this country, which, with Pakistan, was formed from the partition of the British Raj in 1947.

Answer: **India**

<GEO, GEO>>

For 10 points each, give the following about important uses of the number 1 in mathematics.

[10] Because multiplying a real number by 1 does not change the value of the real number, 1 has this property for multiplication. This property is also held by 0 for addition.

Answer: **identity** property (or **identity** element, or phrasings like "1 is the multiplicative **identity**") [10] A polynomial is called "monic" if the term of highest degree has a value of 1 for this quantity, the constant multiplier on a variable term.

Answer: **coefficient**

[10] According to Euler's Identity, 1 plus this exponential expression is equal to zero.

Answer: **e to the i** times **pi** power (or **e to the pi** times **i** power)

<SCI, OTHER>>

Leon Battista Alberti wrote a Renaissance treatise on this technique. For 10 points each:

[10] Name this visual art technique involving making works appear as if they were seen by the naked eye. An example is foreshortening.

Answer: **perspective**

[10] Michelangelo enlarged Mary to take advantage of his viewers’ perspective in this sculpture that shows a young Mary holding the crucified body of Christ. It is his only signed work.

Answer: **Pietà**

[10] This artist used perspective to create paintings of crowded scenes like *The Supper at Emmaus* and *The Calling of St. Matthew*.

Answer: Michelangelo Merisi da **Caravaggio**

<FA, VISUAL>>

Mata Hari was executed by the French for this action in 1917, as were Julius and Ethel Rosenberg in 1953. For 10 points each,

[10] Give this term for illegal secretive intelligence gathering, as often done in wartime.

Answer: **espionage** or **spy**ing (or word forms)

[10] In 1776, this colonial soldier and spy volunteered to scout British troop movements, but was caught and hanged. At his hanging, he legendarily said "I only regret that I have but one life to lose for my country."

Answer: Nathan **Hale**

[10] In 1948, a series of classified documents found in one of these plants implicated Alger Hiss in spying for the Soviet Union.

Answer: **pumpkin** (accept **Pumpkin Papers**)

<HIST, AMER>>

The Alvarez hypothesis states that this event was caused by an asteroid impact roughly 66 million years ago. For 10 points each,

[10] Name this catastrophic biologic event that marks the end of the Mesozoic Era.

Answer: **Cretaceous-Tertiary** (or **Cretaceous-Paleogene**) mass **extinction** event (accept **K-T** (or **K-Pg**) mass **extinction** event; accept **extinction of the dinosaurs**, and prompt on related answers that don’t use the term “extinction”; prompt on “extinction event” alone)

[10] The main evidence in favor of the Alvarez hypothesis is the abundance of this metal element in layers of clay and rock formed at boundary of the Cretaceous and Paleogene periods. This metal is very uncommon in Earth's crust, but commonly found in asteroids and meteorites.

Answer: **iridium** (accept **Ir**)

[10] The estimate that the asteroid collision occurred 66 million years ago was made by analyzing the levels of the 40 and 39 isotopes of this noble gas with atomic symbol Ar.

Answer: **Argon** (accept **Argon-Argon** radiometric **dating**)

<SCI, OTHER>>

Answer the following about Edgar Allan Poe’s short stories, for 10 points each.

[10] The Narrator and his friend Dupin attempt to solve a homicide on the title street in this story, only to discover that the murderer isn’t human.

Answer: The **Murders in the Rue Morgue**

[10] A prince’s lavish party is invaded while he attempts to take refuge from a dangerous plague in this allegorical tale.

Answer: The **Masque of the Red Death**

[10] Name the prince who, at the end of “The Masque of the Red Death,” corners a mysterious robed figure. He shares his name with the rightful Duke of Milan in Shakespeare's *The Tempest*.

Answer:Prince **Prospero**

<LIT, AMER>>

To complete this siege, attacking forces built a wall around a hilltop fort, then built a wall around themselves to protect from a reinforcing army. For 10 points each,

[10] Name this 52 BCE siege of a hilltop fort commanded by Vercingetorix, whose surrender essentially guaranteed the fall of Gaul.

Answer: Battle of **Alesia**

[10] This civilization won the battle of Alesia to conquer Gaul. A set of Commentaries detailing the victory was written by a future dictator of this republic, Julius Caesar.

ANSWER: **Rome** (accept **Roman** Republic)

[10] After the Battle of Alesia, Caesar was denied a triumph in Rome by Pompey, who had formed this political alliance with Caesar and Crassus. A similar, later alliance would form between Marc Antony, Lepidus, and Octavian.

Answer: **First Triumvirate** (prompt on Triumvirate; do not accept Second Triumvirate)

<HIST, OTHER>>

This quantity is the second time derivative of position. For 10 points each,

[10] Give this quantity, measured in meters per second squared, equal to the rate of change of velocity.

Answer: **acceleration**

[10] By Newton’s second law, force equals this quantity times acceleration. For an object in free fall in a vacuum, gravitational acceleration is not dependent on this quantity.

Answer: **mass**

[10] Displacement equals one-half times acceleration times time squared, plus this quantity times time.

Displacement also equals the average of this quantity and final velocity, times time.

Answer: **initial velocity** (accept equivalents, like **beginning velocity**; prompt on velocity)

<SCI, PHYS>>

One re-telling of this novel, *The House on Eccles Street*, was "written" by the fictional author

Elizabeth Costello. For 10 points each,

[10] Name this James Joyce novel, which follows Leopold Bloom on June 16, 1904, as his life parallels the events of Homer's *Odyssey*.

Answer: **Ulysses**

[10] Elizabeth Costello is the title character of a novel by this South African author of *Disgrace* and *Life & Times of Michael K*. This man, who lives in Australia, has won two Booker Prizes and the 2003 Nobel in Literature.

Answer: J(ohn) M(axwell) **Coetzee**

[10] Another retelling of the *Odyssey*, this time from Penelope's view, was written by Margaret Atwood, an author from this nation. Atwood's novel *The Blind Assassin* is set in Port Ticonderoga, a fictional city in Ontario.

Answer: **Canada**

<LIT, OTHER>>

In 1901, a U.S. President invited an African American scholar to dinner, and was so loudly criticized that no President invited a black man to dinner for more than three decades. For 10 points each,

[10] This African-American leader of the Tuskegee Institute, orator of the "Atlanta Compromise," and author of *Up From Slavery* was the honored guest.

Answer: Booker T. **Washington**

[10] Washington was invited by this President, who took office after the death of William McKinley. In his military career, this man fought with the "Buffalo Soldiers" as leader of the Rough Riders.

Answer: **T**heodore **Roosevelt**

[10] Prior to becoming President, Teddy Roosevelt served as this state's Governor; during his two year term, he ended segregation of this state's public schools.

Answer: **New York**

<HIST, AMER>>

This is the type of bonding that occurs in carbon dioxide. For 10 points each,

[10] Name this type of bonding in which electrons are shared between atoms.

Answer: **covalent** bonding

[10] This rule states that bonds tend to give the atoms of a compound eight valence electrons. In the case of hydrogen and helium, it is replaced with a simpler “duet” rule.

Answer: **octet** rule

[10] This diatomic compound violates the octet rule, as its two atoms only combine to have seven valence electrons. In a famous accident, Sir Humphrey Davy inhaled this reactive gas, which combined with the common air to form nitric acid in his mouth.

Answer: **Nitric oxide** or **NO** or **Nitrogen monoxide** (do not accept nitrous oxide or laughing gas)

<SCI, CHEM>>

The “Bring Back Our Girls” hashtag was created in response to one of this group’s actions. For 10 points each:

[10] Identify this Nigerian terrorist organization that gained international attention for abducting over 200 teenage girls from a secondary school in Chibok in April 2014. Their name is often translated as “Western education is forbidden.”

Answer: **Boko Haram** (or **People Committed to the Prophet's Teachings for Propagation and Jihad** or **Jama'atu Ahlis Sunna Lidda'Awati Wal-Jihad**)

[10] On the same day as the Chibok abduction, Boko Haram bombed a bus station in this Nigerian capital, causing nearly 300 casualties.

Answer: **Abuja**

[10] Boko Haram is funded and supported by a North African arm of this terrorist organization, currently led by Ayman al-Zawahiri, which orchestrated the attacks on September 11th, 2001.

Answer: **al-Qaida** (or **al-Qaeda**)

<HIST, WORLD>>

The protagonist of this work wakes up to find himself transformed into a monstrous “vermin.” For 10 points each,

[10] Identify this novella about Gregor Samsa.

Answer: The **Metamorphosis** (accept Die **Verwandlung**)

[10] *The Metamorphosis* was written by this author. In another of this author's works, Uncle Karl tells the protagonist to hire Huld, the Lawyer.

Answer: Franz **Kafka**

[10] Uncle Karl and Huld appear in this novel by Franz Kafka. In it, Titorelli sells the protagonist identical copies of the same landscape and the bank clerk Joseph K. dies "Like a dog!"

Answer: The **Trial** (accept Der **Process**)

<LIT, EURO>>

For 10 points each, name the following popular American composers.

[10] This longtime conductor of the U.S. Marine Band earned the title "The March King" for works like "The Liberty Bell" and "The Stars and Stripes Forever." He also invented a marching tuba that is now named for him.

Answer: John Philip **Sousa** (accept **Sousaphone**)

[10] This composer's "Hoe-down" from his ballet *Rodeo* was used in commercials for beef; he also wrote the *Fanfare for the Common Man* and the music for the ballet *Appalachian Spring*.

Answer: Aaron **Copland**

[10] This king of Ragtime music wrote classic piano rags like *The Entertainer* and the *Maple Leaf Rag*.

Answer: Scott **Joplin**

<FA, AUDIO>>

Ragnar Lodbrok was a legendary ruler of these people, who defeated Charles the Bald's army on the

Seine River in 845 AD. For 10 points each,

[10] Name this group of exploring Norse seafarers, often depicted in modern culture as rampaging berzerkers who sacked European cities like Paris.

Answer: **Viking**s

[10] Viking expansion beyond Scandinavia included the founding of a permanent colony on Greenland by this father of Leif Erikson.

Answer: **Erik the Red** (or Erik **Torvaldsson**; prompt on Erik)

[10] Leif Erikson's exploration included the founding of Vinland, which included a settlement at L'anse aux Meadows [lahnz oh meadows] in this modern Canadian island province.

Answer: **Newfoundland** and Labrador

<HIST, WORLD>>

Aphrodite helped start the Trojan War when she offered Helen of Troy to the judge of a divine beauty contest. For 10 points each,

[10] The beauty contest was lost by Hera and this Greek goddess of wisdom.

Answer: **Athena** (accept **Athene**; do not accept or prompt on "Minerva")

[10] Helen's husband started the Trojan War in an attempt to save Helen from this Trojan prince, who judged the goddesses' beauty contest.

Answer: **Paris**

[10] Angry about the death of his son the cyclops Polyphemus [pah-lih-feh-muss], this god made Odysseus's sail home from the Trojan War much more difficult.

Answer: **Poseidon** (do not accept "Neptune")

<RMPSS, MYTH>>

Peptidoglycan in the cell wall of these organisms can be observed by Gram staining. For 10 points each,

[10] Name this domain of microorganisms. Humans have beneficial types living in the gut and on skin.

Answer: **bacteria**

[10] Some harmless strains of this bacteria are found in the lower intestines, where they help produce vitamin K. Unfortunately, other strains can cause food poisoning.

Answer: **E**scherichia **coli**

[10] E. coli is classified as a bacillus, which has this shape. This shape is in contrast to the spherical shape of cocci [COX-i].

Answer: **rod-**shaped

<SCI, BIO>>

For 10 points each, give the following about Cold War-era military unions.

[10] This anti-Soviet military alliance, named for an ocean, formed in 1949 and included the United States, Canada, the United Kingdom, and other European countries.

Answer: **N**orth **A**tlantic **T**reaty **O**rganization (or **NATO**)

[10] After multiple rejections from NATO, and in protest of West Germany's 1955 acceptance into NATO, the USSR organized this other military alliance, named for a Polish city. It included East Germany and other Soviet-controlled republics.

Answer: Warsaw Pact(accept Treaty of Friendship, Cooperation, and Mutual Assistance)

[10]This organization formed via the Manila Pact in 1954. It originally included states like France, the UK, and the US; the only two founding countries in its namesake region were the Philippines and Thailand.

Answer: **S**outh **E**ast **A**sia **T**reaty **O**rganization (or **SEATO**)

<HIST, WORLD>>

Identify the following important locations in Norse myth, for 10 points each,

[10] This “middle land,” the realm of men, was formed by Ymir’s [ee-meer’s] eyebrow. It is encircled by a namesake “Serpent,” and during Ragnarök, it will sink into the sea.

Answer: **Midgard**

[10] Midgard is connected to Asgard by this rainbow bridge, which is guarded by Heimdall.

Answer: **Bïfrost**

[10] This realm, separated from Asgard by the river Ifing, contains frost giants that pester both gods and men in Norse mythology.

Answer: **Jotunheim** [yoh-tund-hime]

<RMPSS, MYTH>>

Electroplating uses this process to coat an electrode with another metal. For 10 points each,

[10] Name this process in which an atom or ion gains electrons. Its opposite is oxidation.

Answer: reduction

[10] In a voltaic [vol-TAY-ic] cell, reduction takes place at this positively-charged electrode.

Answer: **cathode**

[10] In this equation, the log of the reaction quotient is multiplied by a factor which includes the number of moles and Faraday's constant. This equation gives the cell potential at nonstandard conditions.

Answer: **Nernst** equation

<SCI, PHYS>>

Animals play some strange roles in literature. For 10 points each,

[10] In Steinbeck’s *Of Mice and Men*, Lennie dreams of owning these soft animals, which are also the main characters in the Richard Adams novel *Watership Down*.

Answer: **rabbit**s (accept **bunnie**s, I guess; accept **leporidae** or **leporid**s; do not accept “hares”)

[10] After a storm, Janie is pulled to safety by a cow while Tea Cake is bitten by a rabid dog in this novel by Zora Neale Hurston.

Answer: Their Eyes Were Watching God

[10] Lithuanian immigrant Jurgis [YUR-gus] Rudkus participates in the unsafe butchering of cows in a Chicago slaughterhouse in this muckraking novel by Upton Sinclair.

Answer: The **Jungle**

<LIT, AMER>>

This two-day event was organized by Elizabeth Cady Stanton and a group of Quaker reformers in upstate New York. For 10 points each,

[10] Name this 1848 women's rights convention, which drafted the Declaration of Sentiments.

Answer: **Seneca Falls** Convention

[10] This Quaker orator's visit to Seneca Falls was the impetus for the Convention. Her husband chaired the second day of the Convention, during which she opposed a resolution demanding women's suffrage, noting it made the other resolutions less reasonable to opponents of women's rights.

Answer: Lucretia **Mott**

[10] This women's rights advocate was not at Seneca Falls in 1848, though her parents and sister were there and signed the Declaration of Sentiments. In 1873, she was convicted and fined $100 -- a fine she refused to pay -- for voting while female.

Answer: Susan B. **Anthony**

<HIST, AMER>>

For 10 points each, answer some questions about quantum physics.

[10] This is the only atom for which an exact quantum mechanical solution exists. It is comprised of one proton and one electron.

Answer: **hydrogen** atom (accept **H**)

[10] The quantum hydrogen atom is based on a solution to this equation of quantum mechanics that describes how a wavefunction changes over time. Its namesake also had a famous thought experiment regarding a cat.

Answer: **Schrodinger** equation (accept **Schrodinger**’s cat)

[10] This constant, symbolized lowercase *h*, appears in many quantum phenomena such as the Heisenberg uncertainty principle. It is the ratio of the energy and frequency of a photon of light.

Answer: **Planck**’s constant

<SCI, PHYS>>

For 10 points each, answer the following about subtraction in pop culture.

[10] Dan Walsh created a webcomic subtracting this orange, lasagna-loving cat from his regular Jim Davis comic. The result is, usually, a lonely, depressed Jon Arbuckle, talking to no one.

Answer: Garfield (accept Garfield Minus Garfield)

[10] A similar concept, filled with just as much existential angst, is the video series “Full House Without Michelle.” It takes the classic 1990s sitcom and removes a toddler whose role was shared by these twin girls, who are now involved in the fashion world.

Answer: **Mary-Kate and Ashley** Olsen (or the **Olsens**, **Olsen twins**, **Olsen sisters**, etc.; prompt on partial answers)

[10] In this 1946 Christmastime film by Frank Capra, George Bailey wishes he had never lived; the angel Clarence shows him that, had he not lived, Mr. Potter would have ruined the town of Bedford Falls.

Answer: **It's a Wonderful Life**

<TRASH, POP CULT>>

This novel is framed by Nelly Dean explaining the recent history of the title location to Mr.

Lockwood, a resident of Thrushcross Grange. For 10 points each,

[10] Name this novel, in which the deaths of Hindley, Edgar, Isabella, and Linton give Heathcliff control of Thrushcross Grange and the title house.

Answer: Wuthering Heights

[10] In *Wuthering Heights*, Heathcliff is driven by his frustrated love for this woman, his adopted sister and the eventual wife of Edgar Linton.

Answer: **Catherine** Earnshaw Linton (accept either surname; do not accept “Cathy,” who is a distinct character in the book)

[10] *Wuthering Heights* is by this author, the sister of Charlotte and Anne, who published the book under the pen name Ellis Bell.

Answer: **Emily** (Jane) **Brontë** (full first name required; prompt on partial answer)

<LIT, BRIT>>

This work's most famous selection notes that "he shall reign for ever and ever." For 10 points each,

[10] Name this three-part oratorio, written in 1741, whose Hallelujah Chorus ends its second part.

Answer: **Messiah**

[10] This composer of *Water Music* and *Music for the Royal Fireworks* composed the oratorios *Israel in Egypt*, *Samson*, and the aforementioned *Messiah*.

Answer: George Frederic **Handel**

[10] The Hallelujah Chorus is written in this triumphant major key, also used for the final movement of Mahler's *Titan* symphony. This major key has two sharps in its signature.

Answer: **D** Major

<FA, AUDIO>>

The Bailey-Borwein-Plouffe formula can compute the nth digit of pi without first calculating the n minus 1 digits that come before, but the formula requires the use of this number base. For 10 points each, [10] Name this number base. A single digit in this base is equivalent to a four-digit number in binary, and like binary, it's often used in computing.

Answer: **hex**adecimal or base-**16**

[10] The largest possible digit in binary is 1, and the largest possible digit in decimal is 9. This is the largest possible hexadecimal digit, corresponding to the base-ten number 15.

Answer: **F**

[10] In HTML, a six-hexadecimal-digit number is used to express colors; for example, six zeroes indicate black. What color does FF0000 [F-F-zero-zero-zero-zero] indicate?

Answer: **red**

<SCI, OTHER>>

In one story about this character, he summons the spirit of Helen of Troy. For 10 points each,

[10] Name this scholar who made a deal with the devil. Mephistopheles later collects this character's soul.

Answer: Doctor Heinrich **Faust**us (accept **Faust**)

[10] This author adapted the Faust legend into a two part play, *Faust*. In this author's novel *The Sorrows of Young Werther*, Werther is in love with Lotte, despite Lotte being engaged to Albert.

Answer: Johann Wolfgang von **Goethe**

[10] In Goethe's version of the Faust legend, this character’s mother is given a sleeping potion. This character has a child with Faust, and is arrested for killing that child.

Answer: **Gretchen** (accept **Margaret**)

<LIT, EURO>>

Pablo Picasso painted many works of his native Spain. For 10 points each,

[10] A tired-looking man plays the title instrument on the streets of Barcelona in this Picasso work.

Answer: The Old Guitarist

[10] *The Old Guitarist* was painted during this sad, colorfully-named period of Picasso’s work.

Answer: **Blue** Period

[10] This painting depicts the aftermath of a bombing on a Spanish city, and shows a dead man holding a broken sword and a woman cradling her dead child.

Answer: **Guernica** [gayr-NEE-kah]

<FA, VISUAL>>

This process requires the enzyme RNA polymerase and pairs adenine with uracil. For 10 points each,

[10] Name this process in which DNA is used as template for synthesizing a complementary strand of messenger RNA. Answer: **transcription**

[10] Transcription in bacteria is organized around these blocks of genes with a single switch that can be turned off by a repressor protein. The *lac* [LACK] and *trp* [TRIP] ones are found in *E. coli*.

Answer: **operon**s

[10] Operons and eukaryotic genes are always preceded by this type of DNA sequence where the RNA polymerase attaches. The TATA box is commonly found within this region of DNA.

Answer: **promoter**

<SCI, BIO>>

This concept is symbolized by a solid line and a broken line; the ba gua are the eight possible trigrams formed from a set of three of those lines, and represent concepts like fire and water. For 10 points each,

[10] Give this Chinese philosophical term that describes complementary, yet opposing, forces. It is also symbolized by a circle with swirling black and white regions.

Answer: **Yin** and **Yang**

[10] This text, dating to before 1000 BCE, lists and describes hexagrams, the 64 possible pairs of ba gua. Its title is sometimes translated as "Book of Changes," and it can be used for divination.

Answer: **I Ching** (or Zhouyi)

[10] The ba gua for wind and water give their name to this practice of creating harmony within one's surroundings. It strives to properly control qi [chee], or life energy, by carefully placing of buildings within an area or items within a room.

Answer: feng shui

<RMPSS, REL>>

In this event, Father Gapon organized a peaceful march in St. Petersburg that was met by the Tsar's troops; hundreds of people were killed. For 10 points each,

[10] Name this event, which started the 1905 Russian Revolution. The name of this event applies to numerous other massacres, including one of Irish protesters by the British army in 1972.

Answer: Bloody Sunday

[10] The Russian Bloody Sunday took place at this building, the official residence of the Romanov family, though they hadn't actually lived in this home since a bombing attempt on Alexander II in 1880.

Answer: Winter Palace

[10] This final Romanov Tsar refused to meet the protestors on Bloody Sunday. His family was arrested and executed in the Bolshevik Revolution.

Answer: Nicholas II

<HIST, EURO>>

This third-largest island of its chain is also its most populous; it’s also home to the Punahou School, whose graduates include Barack Obama. For 10 points each,

[10] Name this island, whose tourist attractions include the royal 'Iolani Palace and the probably-dormant volcano Diamond Head.

Answer: **O'ahu**

[10] O'ahu's largest city, Honolulu, is the capital of this U.S. state.

Answer: **Hawai'i**

[10] This neighborhood of Honolulu is dominated by hotels and tourist facilities, as it is home to the most visited beach in Hawai'i.

Answer: **Waikiki** (Beach)

<GEO, GEO>>

In May 2014, NASA announced that this entity has shrunk to half its former size. For 10 points each:

[10] Name this large anticyclonic storm in its planet’s South Tropical Zone. It is around twice the size of Earth and its notable color is thought to be produced from phosphorous or sulfur compounds.

Answer: **Great Red Spot**

[10] The Great Red Spot is found on this largest planet of the Solar System.

Answer: **Jupiter**

[10] The Great Red Spot was first described in 1665 by this scientist. This astronomer also discovered four moons of Saturn, and the largest gap in Saturn’s rings is named for him.

Answer: Giovanni Domenico **Cassini**

<SCI, OTHER>>

Answer some questions about English poetry across time, for 10 points each:

[10] The unknown “Pearl Poet” is generally considered to be the author of “Sir Gawain of the Green

Knight.” Sir Gawain is one of the many Knights of this specific furniture item.

Answer: the **Round Table**

[10] John Keats’ poem “Ode on a Grecian Urn” ends by comparing two abstract concepts. Name either.

Answer: **beauty** OR **truth**

[10] This later English poet wrote “You’ll be a man, my son.” in his poem “If-.” His other poems include the incredibly racist “The White Man’s Burden.”

Answer: Rudyard **Kipling**

<LIT, BRIT>>

This city's Bürgerbräukeller was the site of an uprising on November 8th, 1923 supported by Erich

Ludendorff. For 10 points each,

[10] Name this Bavarian city, the site of Adolf Hitler's failed Beer Hall Putsch.

Answer: **Munich**

[10] The Beer Hall Putsch sought to overthrow the Weimar [VYE-mar] Republic and bring this political party to power. This party took power in Germany in 1932, establishing the Third Reich.

Answer: **Nazi** Party (accept **Nazis**, **National Socialist** German Workers’ Party, **Nationalsozialistische** Deutsche Arbeiterpartei, or **NSDAP**)

[10] In 1934, Hitler ordered this purge of critics, left-wing Nazis, and leaders of the SA, including Ernst Rohm.

Answer: Night of the Long Knives(accept Operation Hummingbird, or Nacht der langen Messer)

<HIST, EURO>>

His best-known works are in a style whose name means “floating-world pictures.” For 10 points each,

[10] Name this Japanese creator of ukiyo-e [oo-kee-oh-ay] like *The Great Wave off Kanagawa*, part of his series *Thirty-Six Views of Mount Fuji*.

Answer: Katsushika **Hokusai** (accept **Hokusai** Katsushika)

[10] Ukiyo-e were made using carefully crafted, interlocking blocks of this material.

Answer: **wood**

[10] This German artist created a series of woodcuts called *Apocalypse*, but is best known for his engravings like *Melancholia I* and *Saint Jerome in his Study*.

Answer: Albrecht **Dürer**

<FA, VISUAL>>

The Monongahela National Forest is located within this mountain range, whose highest peak, Spruce Knob, marks West Virginia's highest point.

[10] Name this 400-mile long mountain range of central Pennsylvania and West Virginia, which lies between the Cumberland Range and the Poconos.

Answer: **Allegheny** Mountains (do not accept or prompt on Appalachians)

[10] The Alleghenies are a subrange of this dominant mountain range of the Eastern seaboard which stretches from Canada to Alabama.

Answer: **Appalachian** Mountains

[10] The largest cities in the Allegheny Mountains are Altoona and this city, the home of Penn State University.

Answer: **State College**, Pennsylvania

<GEO, GEO>>

The cyclic structure of this molecule was proposed by Friedrich August Kekulé after he dreamed of a snake eating its own tail. For 10 points each,

[10] Name this aromatic molecule with formula C6H6.

Answer: **benzene**

[10] Benzene’s relative lack of hydrogens is explained by the presence of three of these stable bonds that alternate with single bonds in the ring.

Answer: **double** bond

[10] However, benzene’s double bonds are only theoretical; instead, the overlapping of these orbitals gives benzene its cyclic nature.

Answer: **pi** orbital

<SCI, CHEM>>

This man wrote the familiar poem *Auld Lang Syne*, although Americans would have trouble recognizing it in its original dialect. For 10 points each:

[10] Name this Scottish poet who wrote the epic poem *Tam O’ Shanter* and a poem about his nation’s historical Battle of Sherramuir.

Answer: Robert **Burns**

[10] Robert Burns wrote that his love was like a “red, red” one of these flowers “newly sprung in June”. Robert Herrick advised to gather the buds of this flower “while ye may” in *To the Virgins, to Make Much of Time.*

Answer: **rose**

[10] In this poem, Burns called the title pest a “crowlin ferlie” and “blastit wonner” and prays “And

would some Power the small gift give us / To see ourselves as others see us!”

Answer: **To a Louse**

<LIT, BRIT>>

In one of this man’s novels, the title character is adopted by Weedon Scott after being owned by

Beauty Smith. For 10 points each,

[10] Name this author, who wrote about the wild White Fang becoming a domestic dog.

Answer: John Griffith “Jack” (Chaney) **London**

[10] In this London novel, contrasted with *White Fang*, Buck becomes wolflike after Manuel steals him from Judge Miller.

Answer: **Call of the Wild**

[10] “Day had broken cold and gray, cold and exceedingly gray” in this London work. In this short story set in the Yukon, “The man” freezes to his death after failing to complete the title action.

Answer: **To Build a Fire**

<LIT, AMER>>

As these large bodies scrape across mountains and landscape, they generate rocky debris known as till. For 10 points each,

[10] Give this term for a large, land-based mass of ice.

Answer: **glacier**

[10] A glacier moving into a valley near the sea can cut one of these inlets with steep cliffs into the rock. This geographic feature is often seen in Scandinavia, especially Norway.

Answer: **fjord**

[10] Glacial movement can also generate these amphitheater-shaped valleys, usually known by a French name. These features become tarns when they fill with water.

Answer: **cirque** (or **corrie** or **cwm** [COOM])

<SCI, OTHER>>

White-tailed deer and white-footed mice are a natural reservoir of this disease. For 10 points each,

[10] Name this infectious disease, usually contracted outdoors, that is identified by its characteristic bull’s-eye rash pattern.

Answer: **Lyme** disease

[10] Lyme disease is harbored by the deer variety of this blood-sucking organism, which can be removed using tweezers.

Answer: **tick**

[10] Ticks, rats, and mosquitoes are described by this term, an infected animal that spreads pathogens to other organisms.

Answer: **vector**

<SCI, BIO>>

This case arose from John Adams' controversial lame-duck appointment of "Midnight Judges," whose appointments Thomas Jefferson refused to recognize. For 10 points each,

[10] Name this landmark 1803 case, in which Chief Justice John Marshall established the process of judicial review.

Answer: **Marbury v. Madison** (or the reverse order)

[10] Judicial review is the process by which this body, led by the Chief Justice, invalidates laws that violate the "supreme law of the land,” the U.S. Constitution

Answer: **Supreme Court** of the United States

[10] The Supremacy Clause, which makes the Constitution the "supreme law of the land," is found in this article of the Constitution, which also requires members of Congress, judges, and other officers to swear oaths to support the Constitution.

Answer: Article **Six** of the U.S. Constitution

<HIST, AMER>>

This novel was released just months before its home country adopted apartheid. For ten points each,

[10] Identify this South African novel by Alan Paton, in which Stephen Kumalo’s son is executed for the murder of Arthur Jarvis.

Answer: Cry, the Beloved Country

[10] Stephen Kumalo’s son is named for this son of David, whose name titles a novel by William Faulkner.

Answer: **Absalom**

[10] The murder of Arthur Jarvis takes place in this South African city. Later, Stephen travels to this city searching for his sister Gertrude.

Answer: Johannesburg

<LIT, OTHER>>

This composer of the *Aeneid*-inspired opera *Les Troyens* was commissioned by Niccolo Paganini to compose *Harold in Italy*. For 10 points each,

[10] Name this French Romantic composer of *Symphonie Fantastique*.

Answer: Hector **Berlioz**

[10] Paganini was known primarily as a violin virtuoso, but he commissioned *Harold in Italy* from Berlioz to feature this other string instrument, slightly larger than a violin.

Answer: **viola**

[10] Paganini's commission came after he acquired a viola made by this Italian family. String instruments made by this family have a reputation for superior quality; in 2014, one of their violins, worth $5 million, was stolen in Milwaukee.

Answer: Stradivarius (or Stradivari)

<FA, AUDIO>>

This type of complex number is a reflection over the real axis, because it is constructed by negating the imaginary part of the original complex number. For 10 points each,

[10] Give this term, which describes the relationship between the complex numbers a plus b i and a minus b i.

Answer: complex **conjugate**

[10] Similarly, the conjugate of a binomial, such as a plus b, is constructed by changing the addition to subtraction. If a binomial is multiplied by its conjugate, this form is the result.

Answer: difference of squares (or a squared minus b squared)

[10] Finding the Hermitian conjugate of one of these rectangular arrays of numbers involves taking the complex conjugate of each of its elements and reflecting it over the main diagonal. Two of these objects can be added together only if they have the same number of rows and the same number of columns.

Answer: **matrix** (or **matrices**)

<SCI, OTHER>>

One of these questions posed by Bertrand Russell in the 20th century asks about a set that contains all sets that contain themselves. For 10 points each,

[10] Give this term for an apparently self-contradicting, yet apparently true statement.

Answer: **paradox**

[10] A famous paradox asks whether this man will ever catch a walking tortoise, given that in the time it takes this Greek man to reach the tortoise, the tortoise will have moved forward.

Answer: **Achilles**

[10] The question of Achilles versus the tortoise was posed by this Ancient Greek philosopher from Elea.

Answer: **Zeno** of Elea

<RMPSS, PHIL>>

The *Pyramid* and *Coffin* texts are subsections of this larger work. For 10 points each:

[10] Name this Egyptian text, containing many spells, that details the processes of mummification and burial.

Answer: Egyptian Book of the Dead (accept Book of Coming Forth By Day)

[10] The Egyptians represented many sacred animals in their burial rites, including cats and this small dung beetle. It was frequently used to represent Ra.

Answer: **scarab** beetle

[10] Egyptian gods are often depicted giving life to mummified bodies using this sacred object, a cross with a looped handle that resembles a key.

Answer: **ankh**

<RMPSS, REL>>

This phenomenon can occur twice in birefringent materials. For 10 points each,

[10] Name this phenomenon in which a wave changes direction as it enters another medium. A straw appears broken in a glass of water because of this phenomenon.

Answer: refraction

[10] A material’s index of refraction is the ratio of this quantity in the medium to this quantity in a vacuum. In a vacuum, it is approximately equal to 3 × 108 meters per second.

Answer: **speed of light** (accept ***c***)

[10] This law relates the ratio of the sines of the angles of incidence and refraction to the ratio of two indices of refraction.

Answer: **Snell**’s law

<SCI, PHYS>>

For 10 points each, answer the following about a man who was ejected from the Garden of Eden.

[10] In Christianity, Eve was created from the rib of this first human.

Answer: **Adam**

[10] Adam and Eve were the parents of this farmer, who was condemned to wander the earth for murdering his brother.

Answer: **Cain**

[10] In some traditions, this demon was Adam’s first wife. Created as his twin, she left Eden when Adam did not allow this woman to be his equal.

Answer: **Lilith** (accept **Lilit**)

<RMPSS, REL>>

Eugene Debs was arrested in the aftermath of this event, after which he became a Socialist. For 10 points each,

[10] Name this railroad strike and boycott that crippled transportation in 1894.

Answer: **Pullman** Strike

[10] This President ordered federal troops to break the Pullman Strike, then established Labor Day as a national holiday to ease tensions. He served two non-consecutive terms as U.S. President.

Answer: Grover **Cleveland**

[10] President Cleveland ordered the end of the strike because it was disrupting this service of the federal government.

Answer: **Mail** delivery

<HIST, AMER>>

This novel opens with a Blodgett College student aspiring to beautify a prairie town with architecture and gardens. For 10 points each,

[10] Name this 1920 novel about Carol Kennicott's dismal, frustrating life in Gopher Prairie, Minnesota, named for the central road of the American rural downtown.

Answer: Main Street

[10] This winner of the 1930 Nobel Prize in Literature -- the first American to be so honored -- wrote *Main Street*. He set works like *Arrowsmith* and *Elmer Gantry* in the fictional Midwestern state of Winnemac.

Answer: Sinclair **Lewis**

[10] Winnemac's portrayal of typical, conforming Midwestern life is particularly critical in this 1922 Lewis novel, about the title middle-aged realtor.

Answer: **Babbitt**

<LIT, AMER>>

This organization's members overthrew the Qing Dynasty with the Revolutionary Alliance in 1912.

For 10 points each,

[10] Name this Chinese political party, led by Sun Yat-sen until his 1925 death.

Answer: **Kuomintang** (or **KMT**)

[10] After Sun Yat-sen's death, this anti-Communist military leader took control of the Kuomintang and led the Northern Expedition to unify China.

Answer: **Chiang** Kai-shek

[10] This Chairman of the Chinese Communist Party opposed Chiang Kai-shek; after this man's victory in the Chinese Civil War, Kai-shek evacuated to Taiwan.

Answer: **Mao** Zedong

<HIST, WORLD>>

Temples take on different forms all around the world. For 10 points each, answer the following about places of worship.

[10] Zoroastrian temples are named for this very hot purifying element which, with water, is a cleansing substance in Zoroastrianism.

Answer: holy **fire**s (accept **flame** or similar; accept **Atar** or **Atari**)

[10] These step pyramids, similar to Mastaba, were often built in Mesopotamian cities like Ur.

Answer: **ziggurat**

[10] These free-standing Japanese doorways mark the entrances to Shinto shrines, and are named for the birds that often sit on them.

Answer: **torii** [toh-ree]

<RMPSS, REL>>

This rebel group, which formed in the mid-20th century in the aftermath of La Violencia, has recently proclaimed an end to ransom kidnappings. For 10 points each,

[10] Name this South American group of guerilla fighters. It has engaged in recent peace talks with President Juan Manuel Santos, who hopes to put an end to this group's violence and illegal drug trafficking.

Answer: **FARC** (accept, but do not otherwise reveal, **Revolutionary Armed Forces of Colombia**)

[10] Days after Juan Manuel Santos took office as this nation's President, a car bomb believed to have been planted by FARC exploded in this nation's capital of Bogota.

Answer: **Colombia**

[10] Much of FARC's funding comes from trade in this illegal drug, a stimulant synthesized from namesake leaves.

Answer: **cocaine**

<HIST, WORLD>>

He wrote “All animals are equal, but some are more equal than others” in one work. For 10 points each,

[10] Identify this author of *Animal Farm* who wrote about Winston Smith, O’Brien, and Big Brother in *1984.*

Answer: George **Orwell** or Eric Arthur **Blair**

[10] Orwell wrote about shooting this animal in Burma. Kipling created Hathi, one of these animals, in *The Jungle Book*.In *Just So Stories,* one of these animals elongates its nose to escape a crocodile.

Answer: **elephant**

[10] Orwell called this author’s *A Passage to India* “the best [novel about India] we are likely to get.” This author also wrote *A Room with a View* and *Howard’s End.*

Answer: E(dward) M(organ) **Forster**

<LIT, BRIT>>

Socrates was convicted of corrupting the youth of Athens and of holding a form of this philosophy.

For 10 points each,

[10] Give this term for the disbelief of the existence of supernatural deities. It is often compared with agnosticism, the idea that one cannot know whether deities exist or not.

Answer: **atheism** (accept word forms)

[10] This Ancient Greek school of philosophy argued that the gods did not interfere with mortal affairs. This school argues that freedom from fear and pain is the highest form of pleasure and the goal of life.

Answer: **Epicureanism** (accept word forms)

[10] Epicureanism's belief in non-interfering deities influenced this modern belief that flourished during the Enlightenment under thinkers like Voltaire. This "natural religion" disputes miracles and other supernatural events, and takes its name from the Latin for “god.”

Answer: **deism** (accept word forms)

<RMPSS, PHIL>>

For 10 points each, give the following about inflection points.

[10] Inflection points will be found where this property of a function changes its sign. In geometry, this property is the opposite of convexity.

Answer: **concavity** (accept word forms; prompt on curvature)

[10] This type of polynomial has constant, non-zero concavity, and therefore will never have a point of inflection. As a result, these polynomial functions are either always concave up or always concave down.

Answer: **quadratic** polynomials (or polynomials of degree **2**; accept **parabola**s)

[10] This curve, commonly used in statistics, has two inflection points, each lying exactly one standard deviation away from the mean.

Answer: **normal** distribution or curve (accept **bell** distribution or curve; accept **Gaussian** distribution or curve)

<SCI, OTHER>>

This symphony was premiered at the same concert as the next numbered symphony by its composer, which is subtitled "Pastoral." For 10 points each,

[10] Name this symphony, whose opening "short-short-short-long" motif is often described as "Fate knocking at the door."

Answer: Ludwig van **Beethoven**'s Symphony No. **5** in C minor, Opus 67 (prompt on partial answer)

[10] The first movement of Beethoven's fifth symphony, like many works in sonata-allegro form, begins with the exposition of the theme. It then develops the theme, then it gives a straight-forward repeat of the exposition; that last section is described by this term. This section is usually followed by a coda.

Answer: **recapitulation**

[10] Beethoven's fifth and sixth symphonies were completed as his deafness progressively worsened; he completed this many symphonies in his career before dying at age 56. His final symphony famously incorporated vocalists.

Answer: **9**

<FA, AUDIO>>

The title objects of this story are combs and a fob. For ten points each:

[10] Name this story story in which Della sells her hair and Jim sells his watch in order to buy each other Christmas presents.

Answer: The **Gift of the Magi**

[10] "The Gift of the Magi” is a story by this author, who included it with “The Cop and the Anthem” in his collection *The Four Million*.

Answer: **O. Henry** (accept William Sidney **Porter**)

[10] O. Henry also wrote this short story, in which the title child terrorizes his would-be kidnappers until they pay for him to go home.

Answer: The Ransom of Red Chief

<LIT, AMER>>

This program, introduced in 2009 and adopted by 46 states before Indiana withdrew, does not address science or social studies. For 10 points each,

[10] Name this national program, which prescribes a series of standard topics and ideas in English and mathematics that students should know, organized by grade level.

Answer: **Common Core** State Standards Initiative (accept any combination of extra information)

[10] The Common Core is not the first national educational initiative; this 2001 law required states to develop their own sets of standards and labels schools as "in need of improvement" if they failed to meet Adequate Yearly Progress on standardized tests.

Answer: **No Child Left Behind** (Law, Bill, or Act; accept **NCLB**)

[10] The No Child Left Behind Bill was proposed on January 23rd, 2001, within the first week of this President's first term.

Answer: **G**eorge **W**alker **Bush** (prompt on Bush; prompt on George Bush; accept anything that clearly indicates him instead of his father; do not accept George H.W. Bush)

<HIST, AMER>>

For 10 points each, answer these questions about ailments of the digestive system.

[10] The bacteria *H. pylori*, rather than stress, causes most of these lesions that wear away the lining of the stomach. These can cause chronic pain and bleeding in the stomach.

Answer: gastric/peptic **ulcer**s

[10] Cholesterol crystallizes to form stones within this small, green organ that stores bile produced in the liver before releasing it to the intestine.

Answer: gallbladder

[10] The growth of bacterial plaque that traps acid is the main cause of cavities in these structures. The addition of fluoride to drinking water helps these structures retain calcium.

Answer: **teeth**

<SCI, BIO>>

This state includes the easternmost point of its country, Isla Mujeres, and its tourist destinations

include Playa del Carmen, Cozumel, and Cancun. For 10 points each,

[10] Name this state, east of the state of Campeche and north of Belize.

Answer: Quintana Roo

[10] Quintana Roo and Campeche are among the states of this largest country in Central America.

Answer: **Mexico**

[10] Quintana Roo lies on this peninsula, named for the state directly to its northwest. This peninsula juts into the Gulf of Mexico.

Answer: **Yucatan** Peninsula

<GEO, GEO>>

A charged particle in one of these entities will undergo uniform circular motion. For 10 points each,

[10] Name these fields that arise from moving charges. They are described by the Biot-Savart [bee-OH sah-VAR] law and measured in Teslas, unlike their electric counterparts.

Answer: **magnetic** fields

[10] This rule determines the direction of the force on a particle given the magnetic field and velocity. A similarly named rule gives the direction of the magnetic field around a current-carrying wire.

Answer: **right-hand** rule

[10] This law, one of Maxwell’s equations, relates the line integral of the magnetic field to enclosed current. It can be used to write magnetic field as a function of current for solenoids.

Answer: **Ampere’s** law

<SCI, PHYS>>

Answer the following about mythological storytellers, for 10 points each.

[10] In West African myth, the trickster Anansi, who bought all the stories of the world from Nyame, had the form of this creature. Arachne was turned into this animal when she wove a tapestry showing gods abusing mortals.

Answer: **spider** (prompt on “arachnid(s)”)

[10] These children of Zeus and Mnemosyne were responsible for literary inspiration and oral knowledge. These nine goddesses, representing various arts, included Clio and Calliope.

Answer: **Muses**

[10] This legendary Persian queen avoided her execution by telling her sister, Dunyazad, and husband, Shahryar, stories, such as those about Sinbad the Sailor and Ali Baba.

Answer: Scheherazade

<RMPSS, MYTH>>

One character in this novel, Fanny Robin, goes to the wrong church on what should have been her wedding day. For 10 points each,

[10] Identify this Thomas Hardy novel in which William Boldwood kills Sergeant Troy, and Bathsheba Everdene marries Gabriel Oak.

Answer: Far from the Madding Crowd

[10] “Far from the Madding Crowd”’ is a line from this English author’s poem “Elegy Written in a

Country Churchyard.”

Answer: Thomas **Gray**

[10] This author italicized five lines of Gray as the only part of a sonnet “of any value” in the preface to *Lyrical Ballads,* which included this author’s “Tintern Abbey” and Samuel Taylor Coleridge’s “The Rime of the Ancient Mariner.”

Answer: William **Wordsworth**

<LIT, BRIT>>

This type of matter is thought to make up more than 25% of all matter in the Universe. For 10 points each,

[10] Name this unobservable type of matter that can only be detected through gravitational interactions. It was discovered by Fritz Zwicky and has cold, warm, and hot subtypes.

Answer: dark matter

[10] Vera Rubin obtained strong evidence for the existence of dark matter by studying the rotation curves of these groups of billions of stars. The Milky Way is an example of one.

Answer: **galaxy**

[10] These particles are prime candidates for dark matter. They’re not MACHOs, but these supersymmetric particles are being searched for by scintillation detectors far underground.

Answer: **WIMP**s (accept **Weakly Interacting Massive Particle**, accept **neutralino**s)

<SCI, OTHER>>

This man survived a 1962 assassination attempt by the OAS, a group of French dissidents who wanted to stop the negotiation of the Évian Accords. For 10 points each,

[10] Name this French President, the founder of the Fifth Republic, who had earlier led the Free French forces during World War II.

Answer: Charles André Joseph Marie **de Gaulle**

[10] The Évian Accords granted independence to this French colony in northern Africa. The independence movement here was led by Ahmed Ben Bella's National Liberation Front, or the FLN.

Answer: **Algeria**

[10] The FLN's use of terrorism to oppose French rule, and the French paramilitary response, were dramatized in the 1966 film *The Battle of* this Algerian capital city.

Answer: The Battle of **Algiers**

<HIST, EURO>>

In one of this author’s works, the Tiger leads an army north to overthrow the army of the warlord the Leopard. For 10 points each,

[10] Identify this author of *Sons* who wrote about Wang Lung and his family in *The Good Earth.*

Answer: Pearl S(ydenstricker) **Buck** (accept John **Sedges**; accept **Sai** Zhenzhu)

[10] Buck’s parents had this profession, which took them to China in an attempt to convert the local people to Christianity.

Answer: **missionary**

[10] In *The Good Earth,* Wang Lung has to pull one of these vehicles around to support his family. In a

Kipling short story, Jack sees Mrs. Wessington’s ghost riding in one of these vehicles.

Answer: **rickshaw**

<LIT, AMER>>

He created a 76-foot-long structure that hangs in the atrium of a building of the National Gallery of Art, which also houses his works *Triple Gong* and *Cascading Flowers.* For 10 points each,

[10] Name this American artist known for creating mobiles.

Answer: Alexander **Calder**

[10] Calder also created stationary sculptures called "stabiles." Many of his stabiles, including his *Flamingo* stabile in Chicago and *Eagle* stabile in Seattle, are painted in his signature shade of this bold primary color. Answer: (Calder) **red**

[10] One of Calder's mobiles is named for this animal's "trap" "and Fish Tail." Salvador Dalí attached a plastic version of this animal to a telephone in one of his works.

Answer: **lobster**

<FA, OTHER>>

In 1861, a Confederate officer, John Merryman, was illegally arrested for treason by a Union military officer, then was illegally held when this writ was ignored. For 10 points each,

[10] Name this legal action, in which a prisoner complains to a judge that his or her imprisonment is

illegal. Its two-word name comes from the Latin for "you may have the body."

Answer: writ of **Habeas Corpus**

[10] This U.S. President suspended the writ of habeus corpus in Maryland in 1861 to protect a supply line, resulting in the illegal arrest of John Merryman. He expanded the suspension of habeus corpus to the entire country later in the Civil War.

Answer: Abraham **Lincoln**

[10] This Chief Justice ruled in *Ex parte Merryman* that only Congress, not the President, has the authority to suspend the writ of habeus corpus. He was also Chief Justice for the *Dred Scott* decision.

Answer: Roger B. **Taney**

<HIST, AMER>>

For 10 points each, give the following about calcium.

[10] The atomic number of calcium is 20, which means an atom of calcium has 20 of these positively charged particles in its nucleus.

Answer: **proton**s

[10] Calcium has this many valence electrons. It also forms a cation with this charge, which can form compounds like CaCl2 [C-A-C-L-2].

Answer: **two** (accept **plus two**, do not accept “minus two”)

[10] This quantity is the amount of energy required to remove an electron from an atom. After calcium has two electrons removed, this quantity becomes very high due to a full valence shell.

Answer: first **ionization energy**

<SCI, CHEM>>