1. This artist painted birds metamorphosing into pachyderms in his *Swans Reflecting Elephants*. This artist worked on films like *The Golden Age* and *An Andalusian Dog* with Luis Bunuel (BOONWELL). Flies and superimposed images of the Venus de Milo appear in this artist's *The Hallucinogenic Toreador*, which also includes floating heads modeled after this artist's wife Gala. Another of his works depicts a mirrorlike sea and cliffs in the background with an ant-covered pocketwatch and melting clocks in the foreground. For 10 points, name this artist of *The Persistence of Memory*.
ANSWER: Salvador Domingo Felipe Jacinto **Dalí** i Domènech

032-09-1-01101

2. At the end of one poem in this man's collection, Men and Women, the title character "yet dauntless" sets his slug-horn to his lips and blows. In addition to "Childe Roland to the Dark Tower Came," he wrote about a man who wraps Porphyria's yellow hair around her neck and strangles her. He is best known for a work in which Duke of Ferrara reflects upon a woman who had "a heart too soon made glad, too easily impressed" and did not appreciate the Duke's "nine-hundred years old name." For 10 points, what British poet wrote dramatic monologues including "My Last Duchess"?
ANSWER: Robert **Browning**

034-09-1-01102

3. This man's brother-in-law, Abel Corbin, was involved in the plans of Jim Fisk and Jay Gould to corner the gold market on Black Friday, which occurred during this man's time in office. A contract made to complete a line of the Pacific Union Railroad under Oakes Ames implicated this man's Vice Presidents, Henry Wilson and Schuyler Colfax, in the Credit Mobilier scandal. For 10 points, name this U.S. president who served after Andrew Johnson, and who was earlier the Union general victorious at the Battle of Vicksburg and against the forces of Robert E. Lee.
ANSWER: Ulysses S. **Grant** [or Hiram Ulysses **Grant**]

023-09-1-01103

4. Saline intrusion in these formations can occur in coastal areas when these structures are over-accessed. Artesian wells occur when these structures meet the surface. In the United States, the Mahomet one lies in Illinois, and the Ogallala one, which lies in the Great Plains, provides thirty percent of the nation's irrigation water. For 10 points, name these areas of permeable rock that store groundwater.
ANSWER: **aquifer**

051-09-1-01104

5. Competitors to this item include the iRex Iliad and Sony's PRS 505. Though it is not made by Apple, a new model of this item, launched in June 2009, includes an accelerometer that automatically changes the display orientation. That is known as the "DX" model of this product. In July 2009, an owner of this item, Justin Garwonski, sued its manufacturer after an incident which Jeff Bezos said was not handled "elegantly," that saw users of this device lose access to an unauthorized edition of *1984*. For 10 points, name this device which uses "E Ink" to display books and newspapers digitally and is sold by Amazon.
ANSWER: Amazon **Kindle**

019-09-1-01105

6. Organic modifiers are used to control one variety of this technique used on small molecules, the high performance liquid type. Increasing solvent polarity can avoid tailing in this technique, which was first used by Mikhail Tsvet. One variety of it relies on the calculation of the retardation factor and has a liquid and a solid phase. Gases and liquids are common mobile phases in this technique, which also has paper and thin-layer types. For 10 points, name this laboratory technique in which components of a mixture are separated by affinity to a stationary phase.
ANSWER: **chromatography**

7. While running for office, this politician used the policy of "Garibi Hatao" to secure victory. From 1975 to 1977, this leader declared a state of emergency in order to stay in power. This leader authorized the Smiling Buddha nuclear tests. This ruler ordered Operation Blue Star, which was an assault on the Golden Temple. That operation led to this leader's assassination by her Sikh bodyguards. For 10 points, name this ruler succeeded by her son Rajiv, who was the daughter of Jawaharlal Nehru and the first female prime minister of India.
ANSWER: **I**ndira Priyadarshini **Gandhi** [or **Indira** at the end; prompt on "Gandhi"]

8. ?The prose works of this author, including the essay "The Deacon's Masterpiece," are collected in his Breakfast-Table series. This author wrote "give her to the god of storms, / The lightning and the gale!" in a poem lamenting the scrapping of USS Constitution, "Old Ironsides." The narrator of another of his poem hears "clearer notes . . . Than ever Triton blew" from the titular "ship of pearl." For 10 points, name this father of a Supreme Court Justice, the Fireside poet of "The Chambered Nautilus."
ANSWER: Oliver Wendell **Holmes**, Sr.

9. The wall of this structure contains the trigone, and consists of layers of detrusor muscle external to a transitional epithelium layer, which ranges from two to five cells thick. This structure, which is posterior to the symphysis pubis, receives fluid from the ureters. An internal sphincter unique to males prevents semen from entering it. At high pressures, fluid flows out of this structure through the urethra. For 10 points, name this hollow container that stores urine.
ANSWER: urinary **bladder**

10. The de Lome letter was intercepted by revolutionaries in this country. The Teller Amendment, in which the United States pledged not to establish control over this country, was replaced by the Platt Amendment. The explosion of a ship in the harbor of this country's capital led to one war for control of this island. American-trained exiles from this country undertook the Bay of Pigs Invasion. The existence of missiles in this country caused a crisis in October 1962. For 10 points, name this country that has been led since the 1950s by Castros.
ANSWER: Republic of **Cuba** [or Republica de **Cuba**]

11. This artist painted a man in anachronistic armor standing next to the red robed title figure in his *Disrobing of Christ*. This painter depicted naked souls receiving golden robes of salvation in his *Opening of the Fifth Seal*. This artist painted a stormy view of his adopted home land in *View of Toledo*. This painter was originally named Domenikos Theotokopoulos, and he painted the ascent of a nobleman to heaven in *The Burial of Count Orgaz*. For 10 points name this Spanish painter usually named for his country of origin.
ANSWER: El **Greco** [or Domenikos **Theotokopoulos** before mentioned]

12. The theorem named for them states that the number of these less than a given number n is approximately equal to n divided by the natural logarithm of n. Specific types of them are named after Sophie Germain and Marin Mersenne, and the fundamental theorem of arithmetic states that any positive integer greater than one can be uniquely expressed as a product of these. They can be found using the sieve of Eratosthenes, and the first four examples of them are two, three, five, and seven. For 10 points, name this type of number, whose only divisors are one and itself.
ANSWER: **prime** numbers

13. This author's *Merlin*, *Lancelot*, and *Tristram* form his Arthurian trilogy. This writer's collection *The Town down the River* contains the poem "How Annandale Went Out" as well as one about a character who mourns that Romance is now on the town and that Art is a vagrant. That title character, who curses the commonplace and eyes a khaki suit with loathing, coughs, calls it fate, and keeps on drinking at the end of the poem. For 10 points, name this American poet of "Richard Cory" and "Minever Cheevy."
ANSWER: Edwin Arlington **Robinson**

14. This man used bongos and maracas alongside a typical orchestra in his *Cuban Overture*. Walter Damrosch conducted the premier a work by this composer that includes four taxi horns. This composer of *An American in Paris* wrote the aria "Summertime" for a work set on Catfish Row. He had another work premiered by Paul Whiteman's orchestra. That work by this composer begins with a clarinet trill and glissando. For 10 points, name this composer who worked with his brother Ira on *Porgy and Bess* and wrote *Rhapsody in Blue*.
ANSWER: George **Gershwin**

15. This empire's first ruler defeated Sumanguru and established this empire's capital at Niani. In addition to Sundiata, this empire was ruled over by a man who maintained a university at Sankore. That ruler of this empire inflated Egypt's market on his way to a pilgrimage in Mecca by loading 100 camels with 300 pounds of gold each. Structures built during this empire include the Hall of Audience in Timbuktu. Preceded by the Ghana and succeeded by the Songhai, for 10 points, name this West African empire once led by Mansa Musa.
ANSWER: **Mali** Empire

1A. He was accused of racism after redistributing farmland owned by white citizens. Name this current president of Zimbabwe, who was opposed in a 2008 runoff election by Morgan Tsvangirai.
ANSWER: Robert **Mugabe**

1B. Identify the scientist who championed alternating current, developed a namesake transformer called his "coil," and lends his name to a unit of magnetic flux.
ANSWER: Nikola **Tesla**

2A. Identify the psychologist who placed self-actualization above "security of body" and basic physiological requirements in his namesake hierarchy of human needs.
ANSWER: Abraham **Maslow**

2B. Name the Canadian-born architect of the Walt Disney Concert Hall and the Guggenheim Bilbao.
ANSWER: Frank **Gehry**

3A. Give the name for the group of languages within the Indo-European family, including Romanian and Spanish, that derive from Latin.
ANSWER: **romance** language

3B. Name the actor who played one of Anne Hathaway's love interests in *The Princess Diaries 2* and starred in the most recent *Star Trek* film as a young James T. Kirk.
ANSWER: Chris **Pine**

4A. This is a 10-second calculation question. Find $(x^6y^3)^3$.
ANSWER: $\underline{x^{18}y^9}$

4B. This is a 10-second calculation question. Multiply one and two-fifths by eleven.
ANSWER: **15 2/5** [or **15.4** or **77/5**]

5A. What poet of the narrative travel epic *Childe Harold's Pilgrimage* wrote that "all that's best of dark and bright/ Meet in her aspect and her eyes" in "She Walks in Beauty?"
ANSWER: Lord George Gordon **Byron**

5B. Identify the river, the longest in western Russia, that flows through Nizhny Novgorod before emptying into the Caspian Sea.
ANSWER: **Volga** River

6A. This is a 20-second calculation question. If you draw one card at random from a standard 52-card poker deck, what is the probability of getting either a Jack or a diamond?
ANSWER: **4/13** [or **16/52**]

6B. This is a 20-second calculation question. If one gallon of water weighs eight and a third pounds, what volume does forty pounds of water take up?
ANSWER: **4 4/5** [or **4.8** or **24/5**]

7A. What geologic time period's namesake "explosion" refers to a rapid increase in quantity and diversity of organisms such as trilobites?
ANSWER: **Cambrian** period

7B. Name the poetic structure that lacks strict rhyme or meter schemes, and was used for the poems in Walt Whitman's *Leaves of Grass*.
ANSWER: **free verse**

8A. Name the rotational analogue of force, which is calculated as the cross product of the radius and force vectors.
ANSWER: **torque**

8B. Some customers threatened a boycott in August 2009 when what upscale grocer's CEO, John Mackey, wrote an editorial against President Obama's health care proposals?
ANSWER: **Whole Foods** Market

9A. This is a 30-second calculation question. A box with volume 4 cubic feet has all of its sides tripled. What is the volume of the new cube?
ANSWER: **108** cubic feet

9B. This is a 30-second calculation question. Find the intersection point of the lines y = 2x + 3 and y = 7 - 2x.
ANSWER: **(1, 5)** [or **x = 1, y = 5** or equivalents]

10A. Name the musician who has recently scored hits with the songs "Paparazzi" and "Poker Face."
ANSWER: **Lady Gaga** [or Stefani Joanne Angelina **Germanotta**]

10B. Name the plant hormone that stimulates leaf and stem growth and, when in excess, causes foolish seedling disease.
ANSWER: **gibberellin**s

1. James Lovelock formed his Gaia Hypothesis while examining a model organism from a class of these creatures. These creatures include *C. Reinhardtii* and *E. Huxleyi*. These organisms contain a body known as a lamina, which is always attached to a stipe, and rapidly increase in population during namesake blooms. Cyanobacteria are called the "blue-green" type of these organisms studied in phycology, and examples of this class include sargassum. For 10 points, name this class of protists that includes many dinoflagellates, diatoms and kelp, an underwater predecessor to plants.
ANSWER: **algae**

033-09-1-01117

2. Act IV, scene i of this play sees its title character accuse another of crying crocodile tears after striking her, horrifying Lodovico. Early in it, the title character and his wife are accosted at the Sagittary by Roderigo and Brabantio, while later, this play's antagonist warns its protagonist against "the green-eyed monster" of jealousy. A handkerchief recovered by Emilia is used by one character to accuse Cassio of adultery in this play, set in Cyprus and Venice. For 10 points, name this play in which Iago tricks the title Moor into killing Desdemona, a work of Shakespeare.
ANSWER: ***Othello**, the Moor of Venice*

029-09-1-01118

3. This man went after the "oligarchs" in his country, such as Boris Berezovsky and Mikhail Khodorkovsky. This man served as head of his country's Federal Security Service. This leader broke the Khasavyurt Accord by sending troops into neighboring Chechnya. In 1999, the unexpected resignation of this man's predecessor, Boris Yeltsin, led to this man becoming president. For 10 points, name this former Russian president, who now serves as prime minister under his handpicked successor, Dmitry Medvedev.
ANSWER: Vladimir Vladimirovich **Putin**

023-09-1-01119

4. In one episode of this work, the protagonist must choose between being flogged thirty-six times by every soldier in a regiment and having twelve bullets in his brain. After he escapes from the Bulgarian army, he is rescued by Jacques the Anabaptist. His tutor is hanged for heresy after the Lisbon earthquake, and even though that tutor is deformed because of syphilis he received from Paquette, he maintains optimism. For 10 points, the title character rejoins the heroine Cunegonde and settles down with Pangloss at the end of what satire by Voltaire?
ANSWER: ***Candide**, or Optimism* [or ***Candide**, ou l'Optimisme*]

034-09-1-01120

5. This language was originally developed by IBM for System R. The Data Manipulation Language is a subset of this language used to create, modify and delete data. Common implementations of this language include ones created by Microsoft, which uses a Transact version, while Postgre (post-gree) uses a Procedural Language version, similar to Oracle. Data is retrieved in this language using a SELECT statement. For 10 points, name this language used to manage data in a system of relational databases.
ANSWER: **SQL** [or **Structured Query Language**]

051-09-1-01121

6. This man, who founded the literary journal *Bungei Jidai* or *The Artistic Age*, used the retirement game of master Honinbo Shusai as the basis in a work narrated by the newsrporter Uragami, *The Master of Go*. This author's "palm-of-the-hand stories" include "The Dancing Girl of Izu." The setting of his most famous work is a hot-spring location that Shimamura visits and meets the Geisha Komako. For 10 points, name this Japanese author of *Thousand Cranes* and *Snow Country*.
ANSWER: Yasunari **Kawabata**

7. In this nation, the Métis led a rebellion under the leadership of Louis Riel, but were absorbed into this country in 1870. Etienne Cartier helped found one party in this nation. The kidnapping of James Cross and Pierre Laporte set off the October Crisis in this country. Wilfrid Laurier led a liberal government in this nation. This nation was the site of the Battle of the Plains of Abraham. Home to Francophone separatists, this nation was once led by Pierre Trudeau. For 10 points, name this country whose provinces include Saskatchewan and Quebec.
ANSWER: **Canada**

8. This figure and his sister killed Niobe's (nye-OH-beez) fourteen children, causing Niobe to become a puddle of tears. One woman desired by this figure was turned into a laurel tree to escape his advances. Another of his loves was killed when this god's discus accidentally hit that object of affection in the head. This lover of Daphne and Hyacinthus was also the father of the god of medicine, Asclepius. For 10 points, identify this brother of Artemis and patron of the oracle at Delphi who was the Greek god of music and light.
ANSWER: **Apollo**

9. Each community of the Lozi (LOTE-zee) people, who live along this river, alternates between living in two villages, one on this river's shores for most of the year and one farther away that is occupied during this river's flood period. This river forms the northeastern border of a long-contested extension of Namibia, the Caprivi Strip. At Chinde (CHIN-day), this eastward-flowing river enters the Mozambique Channel. Upstream, it forms the border between Zambia and Zimbabwe. For 10 points, name this long river of southern Africa, which flows over Victoria Falls.
ANSWER: **Zambezi** River [or **Zambesi** River]

10. In one play by this author, Mnesilochus infiltrates a group of women celebrating the Thesmophoria festival. In another play by this author, Dikaiopolis sets up a private market and is confronted by the charcoal-burning *Acharnians*. This author of *The Knights* and *The Wasps* wrote about Dionysus judging a contest between Aeschylus and Euripides in Hades in one play, and in another wrote about a ploy to withhold sex from men until the Peloponnesian War is over. For 10 points, name this Greek comic playwright of *The Frogs* and *Lysistrata*.
ANSWER: **Aristophanes**

11. One piece of legislation passed during this event forced the clergy to take oaths and hold elected positions by the Civil Constitution of the Clergy. Early on during this period, paper money called the assignat was used. Edmund Burke wrote a work condemning this event. The Reign of Terror was overseen by the Committee of Public Safety under Maximilien Robespierre during this period. For 10 points, name this event that saw the storming of the Bastille and the overthrow of Louis XVI, a period of turmoil in one country which saw a lot of use of the guillotine.
ANSWER: **French Revolution** [or **Revolution of 1789**]

12. This god killed Fimafeng, a servant of the sea god Aegir. This god once turned into a female horse to prevent some walls from being finished on time. That resulted in him giving birth to Sleipnir, the eight-legged horse of Odin. His other offspring include the ruler of the underworld and a giant serpent that wraps around the world. This god talked Hodur into hurling a mistletoe at his brother Baldur, killing him. For 10 points, name this trickster god of Norse myth.
ANSWER: **Loki**

13. This work opens as the narrator recalls the thin, white lips of black-robed judges. It ends when General LaSalle arrives with the French army. In one scene, the narrator of this story trips while crossing the diagonal to measure the dimensions of a room. Rats save the narrator's life when they bite off straps smeared with meat, allowing this story's narrator to escape from a descending blade. For 10 points, the Spanish Inquisition is the background of what Edgar Allen Poe story in which the protagonist narrowly escapes two torture devices?
ANSWER: "The **Pit and the Pendulum**"

14. The Stanley family brought an army larger than the eventual victors to this battle, but held back while they decided who to support. Following this battle, Lambert Simnel and Perkin Warbeck claimed the throne of England. This battle marked the end of the Plantagenet dynasty, which was replaced by the Tudor dynasty after this battle. This battle proved to be the decisive one in the Wars of the Roses. For 10 points, name this 1485 battle in which the Lancasters defeated the Yorks, which led to Henry VII taking the throne after the death in this battle of Richard III.
ANSWER: Battle of **Bosworth Field**

15. Hippolyte Fizeau discovered this effect independently from its namesake in 1848. In spectral lines, this effect causes a namesake "broadening." In astronomy, it can be used to calculate radial velocities of neighboring galaxies. When two astronomical objects are moving away from each other, this effect produces red shift. Its applications include sonar and radar. For 10 points, name this effect in which the apparent frequency of a wave changes with the relative velocity of the observer to the source.
ANSWER: **Doppler** effect [or **Doppler** shift; do not accept "red shift" or "blue shift"]

1. This anthropologist studied the Arapesh, Mundugumor, and Tchambuli in *Sex and Temperament in Three Primitive Socities*. She also wrote a work which was criticized by Derek Freeman for overlooking the taupou system. That work stated that women in the central society enjoyed casual sex while deferring marriage and reported the findings of a study on the island of Ta'u. For 10 points, name this anthropologist who wrote *Coming of Age in Samoa*.
ANSWER: Margaret **Mead**

024-09-1-01132

2. One response to an attempt to do this posited a "perfect island" and was advanced by Guanilo. The argument from degree is one of the Quinque Viae, or Five Ways, which are five proofs of this contention listed by Thomas Aquinas. St. Anselm attempted to prove this via the "ontological argument." Many "cosmological" arguments in favor of this are based on the assumption that there must be a first mover or first cause. For 10 points, name this philosophical position regarding the reality of a major figure in Western religion.
ANSWER: arguments for the **existence of God** [or **theism**; accept any reasonable equivalent that shows knowledge of the answer]

021-09-1-01133

3. The larvae of some organisms of this phylum are called veligers. Organisms in this phylum feed through ribbons of tiny teeth called radula. Many organisms of this phylum can secrete calcium carbonate through their mantle to create a dorsal covering. Other members of this phylum can create spiral shells or produce pearls. Classes in this phylum include Cephalopoda and Gastropoda. For 10 points, name this phylum that includes organisms like snails, squid, and clams.
ANSWER: **Mollusca** [or **mollusk**s]

036-09-1-01134

4. One character in this work "plays attendant" to one married woman annually, and metaphorical characters in this novel include The Two Lovers and The Lady in Black. The protagonist of this novel satisfies herself carnally with Alcée Arobin and ignores the advice of Doctor Mandelet, deepening her love for the alluring Robert Lebrun. Set in Grand Isle, this novel ends with the drowning of dissatisfied New Orleans housewife Edna Pontellier. For 10 points, name this novel by Kate Chopin.
ANSWER: The ***Awakening**

029-09-1-01135

5. One member of this group is abundant in sediment at the Permian-Triassic boundary, and makes up nearly 1 percent of the earth's atmosphere. Hexafluorides and tetrafluorides of some of these elements have been formed in violation of the octet rule, though they typically have low reactivity due to a complete outer shell of valence electrons. These inert elements are often used in lighting, and the most abundant member of this group is argon. For 10 points, name this group of gaseous elements that includes xenon, helium, and neon.
ANSWER: **noble** gases [or **group 18** elements; or **group 8a** elements]

032-09-1-01136