

1. This man often used myths of the Bororo as examples and discussed the development of etiquette from a free code to compulsory in his *The Origin of Table Manners*. That work appeared along with another that claims the transition from nature to culture comes through heating of food, this man's *The* (\*) *Raw and the Cooked*. This man developed a school in his field through such works as *The Elementary Structures of Kinship*. For 10 points, name this writer of *Mythologiques*, a French anthropologist who wrote *Structural Anthropology*.

ANSWER: Claude Lévi-Strauss

023-09-6-10102

2. Two people with this last name discovered an effect relating to electric currents in Rochelle salts. The 1935 winners of the Nobel Prize in Chemistry were the son-in-law and daughter of those people. The namesake of original SI unit for (\*) radioactivity was a member of this family, and the current SI unit is named for the man with whom this family worked, Henri Becquerel. For 10 points, give this name shared by a family of Nobel laureates who discovered the elements polonium and radium, most notably Pierre and his wife, Marie.

ANSWER: Curie

051-09-6-10103

3. Self advancement among practitioners of this religion is described by the Bridge to Total Freedom. In this religion, the ARC and KRC triangles govern the stability of society. This religion emphasizes auditing, which it believes can occur with the help of E-meters. Volcanoes with hydrogen (\*) bombs detonated inside were thought to have made thetans stick together in this religion, which despises an ancient alien named Xenu (ZEE-noo). For 10 points, name this religion that was built around the theory of dianetics by founder L. Ron Hubbard.

ANSWER: Church of **Scientology** 

020-09-6-10104

4. The application of this theorem usually involves the construction of its namesake surface, such as its "pillbox." This theorem can be derived from Coulomb's Law by integrating over a Dirac delta function. In integral form, this expression is usually formulated in terms of a surface integral that is proportional to the enclosed (\*) charge, while its differential version states that the divergence of the electric field is proportional to the charge density. For 10 points, identify this law, one of Maxwell's Equations and named for a German scientist.

ANSWER: Gauss' Law

043-09-6-10105

5. One character in this work is nicknamed "Twenty-two Calamities." That man's financial mismanagement leads to the central event. At one point of this work, a hiker is given a gold piece by a character in financial ruin. At the end of this work, the old servant Firs is abandoned, and Varya, the lover of the merchant (\*) Lopakhin, urges Madame Ranevsky to sell the title estate. For 10 points, the sound of axes chopping down trees is heard from offstage at the end of what play by Anton Chekhov? ANSWER: *The Cherry Orchard* [or *Vishniovy Sad*]

6. Like his older brother, this ruler issued a Declaration of Indulgence that eased religious restrictions. This ruler was targeted shortly after his accession to the throne by the Monmouth Rebellion. Titus Oates claimed that this man was going to take the throne after assassinating his brother in the Popish Plot. This Catholic ruler lost a battle in Ireland at the (\*) Boyne after being removed from power in the Glorious Revolution. For 10 points, name this last Stuart ruler of England, who was replaced by William and Mary a few years after succeeding Charles II.

ANSWER: <u>James II</u> of England [or <u>James VII of Scotland</u>; prompt on <u>James VII</u>]

023-09-6-10107

7. Objects on the surface of this entity are described by Sporer's Law and were not as visible during the Maunder Minimum. The SOHO spacecraft, which sends telemetry about this object to Earth, occupies a Lagrange point of an orbit around this astronomical object. Voyager 1 and 2 passed through a (\*) termination shock, which was formed because of this object. This object emits a stellar wind of plasma that produces the Northern Lights, and its corona is visible during an eclipse. For 10 points, name this stellar body at the center of the solar system.

ANSWER: the **sun** [or **Sol**]

033-09-6-10108

8. This man gained prominence for quelling a revolt of Asturian miners before becoming commandant of the Canary Islands. Under this man's rule, the Sindicato Vertical was the only legal trade union. This man oversaw the fusion of the Carlist and (\*) Falange parties. In 1969, this man designated Juan Carlos as his official successor. Despite receiving aid from Nazi Germany and Fascist Italy during his country's civil war, this man kept his country neutral during World War II. For 10 points, name this Nationalist dictator of Spain from 1939 to 1975.

ANSWER: Francisco Franco

030-09-6-10109

9. Buddy Harrelson was a coach on the second World Series winner for this franchise and was the starting shortstop for this franchise's first World Series winner, playing alongside Cleon Jones and Tommy Agee. The year that this team won its second World Series, a key midseason trade for Lee Mazzilli pushed George Foster off its roster, opening up playing time for Lenny Dykstra and (\*) Mookie Wilson. This team won its second World Series in part because Bill Buckner misplayed a ground ball. For 10 points, name this National League team that won the 1969 and 1986 World Series, whose 2009 players include Jose Reyes and David Wright.

ANSWER: New York Mets [prompt on New York]

053-09-6-10110

10. In one work by this man, a group of boys often swim around a minesweeping ship, in which Mahlke finds a sanctuary from ridicule about his large Adam's apple. In another work by this author, a raid on a post office results in the execution of Jan Bronski. In that work by this man, the main character's father dies by swallowing a political (\*) badge. A main character created by this author receives a certain musical object at age three, when he decides to stop growing. For 10 points, name this German author of the *Danzig* trilogy, which includes *Cat and Mouse* and *The Tin Drum*.

ANSWER: Günter Grass

11. This city's Federal District is bounded by the Riachuelo River and Avenida General Paz. This city's Pyramid of May is located in the Plaza de Mayo. The Avenida Corrientes and Calle Lavalle are home to a large theater district in this city. This city is also the location of the Casa Rosada, from which this nation's leaders have (\*) addressed mass audiences. For 10 points, name this city, which is located at the point where the Parana River delta widens to form the Rio de la Plata, and serves the capital of Argentina.

ANSWER: **Buenos Aires** 

030-09-6-10112

12. The central figure in this painting was modeled by Victorine Meurent. Other models used for this painting included Ferdinand Leenhoff and the artist's brother Eugene. An empty boat can be seen in the background of this painting, next to a woman in a white dress who bends and dips her hand into the (\*) water. In the bottom left of this painting, a basket overflows with food onto a blue dress. This painting's forefront depicts two fully dressed men standing next to a nude woman who looks directly at the viewer. For 10 points, name this Edward Manet painting.

ANSWER: The <u>Luncheon on the Grass</u> [or Le <u>déjeuner sur l'herbe</u>]

015-09-6-10113

13. This wife of Asterius possessed a bronze robot that hurled stones at unwanted strangers, and a hound that always caught whatever he was hunting. Those creatures were Talos and Laelaps. Two of this woman's sons serve alongside Aeacus (eye-EEK-us) as judges of the dead. While searching for this woman, her brother (\*) Cadmus founded Thebes. After being carried off to Crete, this Phoenician princess bore Sarpedon, Rhadamanthys (rad-uh-MAN-thus), and Minos. For 10 points, name this woman who was abducted by Zeus in the form of a white bull.

ANSWER: Europa

003-09-6-10114

14. In one of this man's dramas, Hilaret and Capatain Constant expose the corruption of Justice Squeezum. A cow eats Tom Thumb in his *The Tragedy of Tragedies*. After this man's career in the theater ended with the passage of the Licensing Act of 1737, he wrote a novel in which Lady Booby attempts to corrupt the title character, (\*) *Joseph Andrews*. For 10 points, name British author of a novel abot a foundling who loves Jenny and was discovered by Squire Allworthy, *Tom Jones*.

ANSWER: Henry Fielding

030-09-6-10115

15. The score for this ballet contains a pounding combination of an F flat chord and an E-flat seventh chord played two hundred times in its section "Dances of the Adolescent Girls." This ballet climaxes with a young girl dancing herself to death in its final act, "The Sacrifice." This ballet's awkward, primitive movements, choreographed by (\*) Vaslav Nijinsky, and its strongly dissonant music inspired a riot at its 1913 premiere. For 10 points, name this ballet composed by Igor Stravinsky, which depicts a pagan ritual.

ANSWER: The **Rite of Spring** [or Le **Sacre du Printemps**]

004-09-6-10116

16. One commander at this battle ordered the metal beaks removed from some of the ships. Prior to this engagement, one side had beseiged Famagusta. The winning force at this battle was an alliance assembled by Pope Pius V that included Andrea Doria of Genoa and Don John of Austria. The (\*) Holy League defeated the forces of Selim II at, for 10 points, what 1571 naval battle that checked Ottoman power in the Mediterranean?

ANSWER: Battle of Lepanto

17. A mutant *talpid2* gene in this organism induces teeth, and the first identified tumor virus to be found, the Rous sarcoma virus, was isolated in this organism. Its embryo, an important developmental model, has a Hensen's node. B cells are named after the Bursa of Fabricius of this organism. It was first (\*) domesticated in southeast Asia, and the most common breed of this creature is the Leghorn. For 10 points, name this species of bird whose current population is highly inbred because humans prefer eating ones with more meat.

ANSWER: chicken [or Gallus gallus domesticus; prompt on bird; prompt on jungle fowl]

001-09-6-10118

18. One poem by this author opens "I have done it again. One year in every ten" and describes skin as "Bright as a Nazi lampshade." Another work of this poet describes the title character as "Big as a Frisco seal" and confesses "I have always been scared of you, With your Luftwaffe, your gobbledygoo." One character created by this author works at a fashion magazine and is dumped by Buddy Willard before ending up in a (\*) mental institution. For 10 points, name this author of "Lady Lazarus," who used Nazi imagry in the poem "Daddy" and wrote about Esther Greenwood in *The Bell Jar* before her oven-assisted suicide.

ANSWER: Sylvia Plath

015-09-6-10119

19. Under the rule of this dynasty's ruler al-Mustakfi, its capital was siezed by the Buyids. The eighth ruler of this dynasty, al-Mutasim, was the first to employ Turkish mercenaries. This dynasty was founded when Abu Muslim defeated the last caliph of a preceding dynasty, Marwan II, at the battle of the Great Zab River, and it was once ruled by the legendarily opulent (\*) Harun al-Rashid. The rule of this dynasty ended in 1258, when Baghdad fell to the Mongols. For 10 points, identify this second great Muslim dynasty, which overthew and succeeded the Umayyad caliphate in 750.

ANSWER: <u>Abbasid</u> Dynasty [or <u>Abbasid</u> Caliphate]

043-09-6-10120

20. This man wrote the pamphlet *Essays Before a Sonata*. His second string quartet is supposed to represent a political argument and a reconciliation between four men. He incorporated popular tunes, such as "Hallo Ma Baby," into the dissonant (\*) *Central Park in the Dark*, The sections "Emerson," "Hawthorne," "The Alcotts," and "Thoreau" appear in another of this man's works. For 10 points, name this American composer of the *Concord Sonata* and *Three Places in New England*.

ANSWER: Charles **Ives** 

030-09-6-10121

21. Succulent organisms obtain a main reactant of this reaction series by breaking down malate to pyruvate in crassulacean acid metabolism. In this reaction chain, G3P is formed after the reduction of 1,3-Bisphosphoglycerate (BI-FOSS-fo-GLISS-er-ate) by NADPH. The first step of this reaction chain is catalyzed by (\*) rubisco and requires an intake of carbon dioxide. The end product of this reaction series in the stroma is converted to glucose. For 10 points, name this carbon-fixation cycle that follows the light-dependent reactions of photosynthesis.

ANSWER: <u>Calvin</u>-Benson-Bassham Cycle

22. This person gained promotion to his highest office in part due to his speech "Soldier's Faith." This justice argued that "the life of the law has not been logic; it has been experience" in his book *The Common Law*. This justice controversially wrote "three generations of imbeciles are enough" in a majority opinion upholding a Virginia compulsory sterilization law, and dissented in *Abrams v. U.S.* to protest the misapplication of his (\*) "clear and present danger" doctrine. He argued that the First Amendment does not protect someone "falsely shouting fire in a theatre" in *Schenck v. U.S.* For 10 points, name this Supreme Court justice, known as "The Great Dissenter."

ANSWER: Oliver Wendell Holmes, Jr.

053-09-6-10123

23. One poet who joined this country's army described a song echoing "Out of the hills of Habersham, Down the valleys of Hall." The author of "The Minstrels Return from the War," John Hill Hewitt, was known as the "bard" of this country, and Henry Timrod is called this country's poet laureate. Allen Tate wrote an "ode" titled for the dead of this country. The author of "The Marshes of Glynn" and "The Song of the (\*) Chattahoochee" fought for this country, and was named Sidney Lanier. For 10 points, name this country, whose brief period of literary output often focused on defending the agrarian lifestyle and the institution of slavery.

ANSWER: The <u>Confederate</u> States of America [or The <u>Confederacy</u>; or <u>CSA</u>; do not accept or prompt on "United States"]



- 1. During this man's hajj to Mecca, he managed to flood the gold market of Cairo with his lavish spending. For 10 points each:
- [10] Name this ruler, who used the architect al-Sahili to build structures in Gao, Timbuktu, and Niani.

ANSWER: Mansa Musa I

[10] Mansa Musa was a ruler of this West African empire, which names a present day country, and at one point ruled over the Songhai people.

ANSWER: Mali Empire

[10] This man, the subject of an eponymous epic, founded the Mali Empire and built the capital city of Niani after winning the Battle of Kirina.

ANSWER: Sundiata [or Mari Diata; or Mari Jata]

023-09-6-10201

- 2. Poems in this collection include "We Are Seven" and "Anecdote for Fathers." For 10 points each:
- [10] Name this 1798 poetry collection, a collaboration between Samuel Taylor Coleridge and another poet, which kicked off the British Romantic movement.

ANSWER: Lyrical Ballads

[10] This partner of Coleridge on *Lyrical Ballads* wrote many of his finest poems, such as "The Prelude" and "I Wandered Lonely as a Cloud," during his later solo years.

ANSWER: William Wordsworth

[10] This poem was inspired by Wordsworth's visit to a building on the banks of the River Wye with his sister Dorothy, whom the poem refers to as "thou my dearest Friend."

ANSWER: "Lines composed a few miles above <u>Tintern Abbey</u> on revisiting the banks of the Wye Valley during a tour, July 13, 1798"

024-09-6-10202

- 3. Identify these Jewish occurrences that involve fasting, for 10 points each.
- [10] This Jewish day of atonement is perhaps the most notable fast day. It begins with the *Kol Nidre* prayer and ends with the *Neilah* service.

ANSWER: Yom Kippur

[10] This day commemorates the destruction of the Temples of Jerusalem. The *kinnot* are read on this observance.

ANSWER: Tisha B'Av [or Ninth of Av]

[10] The Fast of Esther precedes this holiday, which commemorates Haman's failed attempt to exterminate the Jews. Rituals associated with this holiday include making noise with a *grager* (GROG-ur) and drinking copious quantities of alcohol.

ANSWER: **Purim** [or **Lots**]

- 4. This man painted *Two Cut Sunflowers* as part of his series of paintings about sunflowers. For 10 points each:
- [10] Name this artist, who painted *Starry Night* and self portraits of himself both before and after he cut his ear off.

ANSWER: Vincent Van Gogh

[10] In this Vincent Van Gogh painting, three women wear bonnets, while another woman and a man wear hats. This dinnertime scene is lit by an oil lamp.

ANSWER: The **Potato Eaters** [or De **Aardappeleters**]

[10] This work by Van Gogh is a depiction of a drinking establishment in Arles. It shows the owner,

Joseph-Michel Ginoux, standing behind the billiards table.

ANSWER: The Night Café in the Place Lamartine in Arles

027-09-6-10204

5. Members of this phylum possess a notochord at some point in their lifespan. For 10 points each:

[10] Name this phylum which includes mammals, birds, and fish.

ANSWER: **Chordata** [or **chordates**]

[10] This flightless bird once lived on the island of Mauritius but has been extinct for around three hundred years.

ANSWER: dodo

[10] The dodo and other birds are members of this class.

ANSWER: Aves

025-09-6-10205

- 6. This man was elected to the Confederate Congress decades after the end of his Presidential term, during which hewas known as "His Accidency." For 10 points each:
- [10] Name this man, who withdrew from the 1844 presidential election after failing to gain the support of his party for a re-election bid.

ANSWER: John Tyler

[10] John Tyler succeeded this man as President. This victor at the Battle of Tippecanoe won the presidency in the "Log Cabin and Hard Cider" campaign.

ANSWER: William Henry Harrison

[10] John Tyler's secretary of the Navy, Thomas Gilmer, and Secretary of State, Abel Upshur, were killed when the *Peacemaker* gun exploded aboard this ship on the Potomac River in 1844.

ANSWER: USS Princeton

030-09-6-10206

- 7. This neighbor of Djibouti fought a thirty year war for independence, and it includes some islands of the Dahlak Archipelago. For 10 points each:
- [10] Name this East African nation.

ANSWER: Eritrea

[10] Eritrea broke off from this other East African nation, whose official language is Amharic. This is the home of Lake Tana and the Awash River, and it was devastated by famine in the 1980s.

ANSWER: Ethiopia

[10] Once known as Finfinnie, this city is the headquarters of the African Union and the UN Economic Commission on Africa. It is the capital of Ethiopia.

ANSWER: Addis Ababa

- 8. This 1812 battle was a tactical defeat for the forces of Mikhail Kutuzov, but it inflicted heavy losses on Napoleon's Grand Army. For 10 points each:
- [10] Name this battle that allowed Napoleon to enter Moscow, which had been evacuated prior to his arrival.

ANSWER: Battle of **Borodino** 

[10] The German army lost three hundred thousand men in the 1942 to 1943 siege of this Russian city.

General Friedrich von Paulus surrendered to Soviet troops, against Hitler's orders, to end this battle.

ANSWER: Stalingrad

[10] With Erich von Ludendorff, this German field marshal defeated the Russians at Tannenberg in 1914. He later became the last president of Germany under the Weimar (VYE-mar) Republic.

ANSWER: Paul von Hindenburg

030-09-6-10208

- 9. A famous section of this novel is a parable told by one of the title characters to another, entitled "The Grand Inquisitor." For 10 points each:
- [10] Name this Dostoevsky novel, in which all of the title characters are in some sense responsible for the murder of Fyodor.

ANSWER: The Brothers Karamazov [or Bratya Karamazovy]

[10] The actual murderer of Fyodor is this character. In addition to probably being Fyodor's illegitimate son, he is his servant.

ANSWER: **Pavel** Smerdyakov [or Pavel **Smerdyakov**]

[10] This brother is convicted of Fyodor's murder, in spite of the best efforts of Ivan and Alyosha to prove his innocence.

ANSWER: **Dmitri** Karamazov [or **Mitya**]

024-09-6-10209

- 10. This man was freed from imprisonment at Gran Sasso by Otto Skorzeny. For 10 points each:
- [10] Name this Italian leader who ruled from 1923 to 1945, when he was killed by furious partisans, who apparently weren't impressed with his title of Il Duce (ill DOO-chay).

ANSWER: Benito Mussolini

[10] While Mussolini was the de facto ruler of Italy, the actual king was the third ruler of this name. The second ruler of this name was the first king to rule over a united Italy.

ANSWER: <u>Victor Emmanuel</u> [or <u>Vittorio Emanuele</u>; do not accept or prompt on partial answer]

[10] This Pope, who held office during World War II, had an uneasy relationship with Mussolini. While he spoke out against German aggression, he has been frequently criticized for remaining overly silent regarding the Holocaust.

ANSWER: Pope Pius XII [or Eugenio Maria Giuseppe Giovanni Pacelli; prompt on Pius]

052-09-6-10210

- 11. For 10 points each, name these things involved in integration.
- [10] This theorem states that integration and differentiation are inverses of each other.

ANSWER: **Fundamental Theorem** of **Calculus** [or **FTC**; prompt on partial answer]

[10] The Fundamental Theorem of Calculus also explains how to evaluate this kind of integral, which has upper and lower limits.

ANSWER: definite integral

[10] In this kind of definite integral, either the upper or lower limit is infinite, or the function approaches positive or negative infinity at some point in the integration window.

ANSWER: **improper** integral

- 12. In this novel, the blind librarian Jorge of Burgos dies after eating a poisoned book. For 10 points each:
- [10] Name this 1980 novel of medieval literary intrigue, in which William of Baskerville and Adso of Melk try to solve a series of murders in a monastery.

ANSWER: The Name of the Rose [or Il nome della rosa]

[10] This Italian semiotician and novelist wrote *The Name of the Rose*, in addition to *Baudolino* and *The Mysterious Flame of Queen Loanna*.

ANSWER: Umberto Eco

[10] The main characters of this Eco novel invent a conspiracy known as The Plan, involving the Knights Templar and the titular apparatus.

ANSWER: *Foucault's Pendulum* [or *Il pendolo di Foucault*]

024-09-6-10212

- 13. In October 2009, President Obama won an award for his diplomatic promise. For 10 points each:
- [10] Name the award, which has been won in the past by Jimmy Carter and Desmond Tutu.

ANSWER: **Nobel Peace** Prize [or **Nobel fredspris**; prompt on partial answer]

[10] The five members of the committee that awards the Nobel Peace Prize are appointed by the parliament of this country, a neighbor to Alfred Nobel's home country.

ANSWER: Kingdom of **Norway** 

[10] The 2008 Nobel Peace Prize was awarded to Martti Ahtisaari, a former president of this nation.

ANSWER: Republic of **Finland** 

026-09-6-10213

- 14. Examples of these pseudo-organisms include the Tobacco Mosaic and Epstein-Barr ones. For 10 points each:
- [10] Name these infectious particles that require a host for replication.

ANSWER: virus

[10] This term describes the protein structure that surrounds the nucleic acids of the virus.

ANSWER: capsid

[10] This experiment used radioactive isotopes of phosphorous and sulfur to show that the genetic information of a virus is in its DNA, not its capsid.

ANSWER: Hershey-Chase Experiment

001-09-6-10214

- 15. It was named "Melancholia" by Hippocrates, and is twice as common in women as men. For 10 points each:
- [10] Name this common psychiatric disorder, which can be characterized by symptoms like sadness, low self-worth, and pessimism. It is often treated with Prozac.

**ANSWER:** depression

[10] This neurotransmitter is derived from tryptophan. A reduced quantity of it can lead to depression, and SSRI medications selectively inhibit its reuptake.

ANSWER: **serotonin** [or **5-hydroxytryptamine**]

[10] This other mental disorder can come in a catatonic form, where sufferers are essentially immobile for long periods of time. This disorder can also be undifferentiated.

ANSWER: schizophrenia

- 16. This composer used either two or three hammer blows in his sixth symphony. For 10 points each:
- [10] Name this Austrian composer, who set the scene of the Holy Anchorites from *Faust* in his eighth symphony, nicknamed "Symphony of a Thousand."

ANSWER: Gustav Mahler

[10] This second symphony by Mahler quotes the song cycle *Des Knaben Wunderhorn*. Its finale sets the Klopstock poem *Aufersteh'n*.

ANSWER: **Resurrection** Symphony

[10] The third movement of Mahler's first symphony opens with a variation on this French children's song as a funeral march. In English, it is often sung as a round asking "Are you sleeping Brother John?"

ANSWER: "Frere Jacques"

027-09-6-10216

- 17. Neo-adherents to this philosophical school include Donald Davidson. For 10 points each:
- [10] Name this movement, which emphasizes the practical consequences of accepting a proposition's meaning. Its adherents included William James.

ANSWER: pragmatism

[10] This founder of pragmatism published influential works such as "The Fixation of Belief" and "How to Make Our Ideas Clear."

ANSWER: Charles Sanders Peirce

[10] An oft-cited proto-pragmatist is this man, who described nature as a transparent eyeball and wrote such essays as "The Over-Soul" and "Self-Reliance."

ANSWER: Ralph Waldo **Emerson** 

020-09-6-10217

- 18. This author's frequent outbursts may have been the result of Tourette's Syndrome. For 10 points each:
- [10] Name this British author, often referred to as "Doctor," who penned a novel about a Prince of Abyssinia, *Rasselas*, and who published the periodical *The Rambler*.

ANSWER: Samuel **Johnson** 

[10] Samuel Johnson's life was the subject of a massive biography by this Scottish companion.

**ANSWER:** James **Boswell** 

[10] Samuel Johnson's most enduring contribution to English letters may have been his singlehanded creation of one of this type of reference book.

ANSWER: a <u>dictionary</u> of the English language [accept reasonable equivalents]

026-09-6-10218

- 19. This object is destroyed in a basement furnace after it is thought to be junk. For 10 points each:
- [10] Name this sled, an enigma according to Jerry Thompson, who surmises that it was "something he couldn't get, or something he lost."

ANSWER: Rosebud

[10] Rosebud is central to the plot of this 1941 Orson Welles film, considered by Ebert to be the best of all time. This film focuses on the decline of an inhabitant of Xanadu and media magnate.

ANSWER: Citizen Kane

[10] In Citizen Kane, the title character says "Rosebud..." before his death, while clutching this object.

ANSWER: a **snow globe** 

- 20. At standard conditions it is equal to negative RT times the natural log of the equilibrium constant. For 10 points each:
- [10] Name this quantity that can describe whether a reaction is favorable or not.

ANSWER: Gibbs free energy

[10] A reaction is at equilibrium if the Gibbs free energy equals this.

ANSWER: zero

[10] This is the term for processes whose Gibbs free energy is less than zero and thus does not require any external energy input to occur.

ANSWER: spontaneous

001-09-6-10220

21. In this work, the unnamed narrator works as a nanny at Bly. For 10 points each:

[10] Name this novella, in which the ghostly Peter Quint and Miss Jessell haunt Miles and Flora, the two wards of the narrator.

ANSWER: The **Turn of the Screw** 

[10] *The Turn of the Screw* is a short novel by this American expatriate to Britain, who wrote about a feminist named Olive Chancellor in his *The Bostonians* and also penned *The Ambassadors*.

ANSWER: Henry **James** 

[10] Henry James also wrote this novel, in which the title character, Isabel Archer, rejects Caspar Goodwood in favor of Gilbert Osmand.

ANSWER: The Portrait of a Lady

026-09-6-10221

22. One of the first type of these devices was the Leyden Jar. For 10 points each:

[10] Name this device that is usually made of two parallel-plate conductors.

ANSWER: capacitor

[10] This nonconducting material lies between the plates of a capacitor and helps to increase capacitance.

ANSWER: dielectric

[10] Polarizing a dielectric creates this type of surface charge where the dielectric faces conducting plates.

ANSWER: bound charge