## 金 HSAPQ <br> High School Academic Pyramid Questions <br> 2008-2009 <br> ACF-Format Set \#4 Round 15 <br> Tossups

1. Sponsors of these events included FreedomWorks and dontGO, and they grew from remarks made by Rick Santelli. These events were labeled an "Astroturf movement" created by news networks and Republican leaders, and notable ones were held at the White House and on Boston Common, both involving the titular substance. The model for these events occurred when revolutionaries dressed as Native Americans dumped the namesake substance into the ocean. For 10 points, name these events mostly held on April 15 to protest high government spending.
ANSWER: Tax Day Tea Parties [or tea party protests]
2. This polity's north features Mount Hsiung-lung, which, with Yu Shan, is a member of the Chung-yang range. The city of Chung-hsing Hsin-ts' un and the municipality of Kao-Hsiung are found in the center and south of this polity, whereas its commercial center is its northernmost municipality. To this island's south lies the Bashi Channel, while sixty-four islands to the west make up the Pescadores in its namesake strait. For 10 points, name this island separated from the Ryukyu Islands and Okinawa by the South China Sea to the north, with a government at Taipei.
ANSWER: Taiwan [or Formosa]
3. Some of these entities are governed by the Statute of Frauds and their enforcement requires "consideration" at common law. The "battle of the forms" can occur between standard form versions of them, and the mailbox rule is an exception to the general rule that they are formed through actual communication. At common law, specific performance is generally not used as a remedy for their violation, and they generally consist of an offer and acceptance. For 10 points, identify these promises enforceable by law, some of which are written or verbal.
ANSWER: contracts
4. Early drawings for one of this architect's works suggest that it was intended to have seven rather than three bays of large composite columns. Along with the Loggia del Capitaniato, he created a church whose bell tower collapsed in 1774. Another of his works has two main pediments at the center of its white stone facade and is called II Redentore. His home for the Capra family has four lonic porticos and a central dome, and he wrote Four Books of Architecture. For 10 points, name this sixteenth-century Venetian architect of the Villa Rotonda. ANSWER: Andrea Palladio [or Andrea di Pietro]
5. Concurrent with this battle, Thomas Graves was defeated by the French and forced to retreat to New York, and the Comte de Rochambeau brought four thousand troops in to take part in this engagement. The losing forces fortified the promontory of Gloucester before this battle, and in it a fleet from the West Indies under Comte de Grasse maintained a blockade of Chesapeake Bay and transported the American commander to Williamsburg to meet Lafayette. For 10 points, name this siege of a town occupied by Cornwallis, the last battle of the American Revolution.
ANSWER: The Battle of Yorktown
6. In some organisms, DNA associated with this structure can confer atrazine resistance via the psbA gene. Organisms also express a family of envelope protein translocases for this organelle called Tic and Toc. That aforementioned type of DNA often forms trimers and tetramers. Molecules associated with this structure include plastoquinone and NADPH, which is used in this structure's electron transport chain. Stacks of thylakoids are found dispersed throughout the stroma of this organelle. For 10 points, name this organelle, the main site of photosynthesis.

## ANSWER: chloroplast

7. This poet wrote about "a naughty boy" who would do nothing "but scribble poetry" in "A Song About Myself." The god Saturn sits "deep in the shady sadness of a vale" in an unfinished epic poem by this author, Hyperion, and his other long poems include The Eve of St. Agnes. This man also wrote of a character with "a fading rose" on his cheeks who wanders when "the sedge has wither'd from the lake," and in another poem asserts "beauty is truth, truth beauty." For 10 points, name this British poet of "La Belle Dame Sans Merci" and "Ode on a Grecian Urn." ANSWER: John Keats
8. A white one of these creatures belonging to the deity Svetovid was used for divination in Slavic mythology. Susano'o angered Amaterasu by flinging the corpse of a skinned one at her maids, and one of them named Svaðilfari mated with Loki to produce an eight-legged one, Sleipnir. The body of Diomedes was fed to some man-eating ones named after him in Greek mythology, which saw a fabrication of one containing soldiers ready to invade Troy. For 10 points, name this creature, a winged example of which is Pegasus.
ANSWER: horses [or mares; or steeds; accept word equivalents]
9. Movements like "Wedding Piece" and "Forest Legend" appear in an early cantata by this composer called Song of Lamentation. He used a cowbell in his seventh symphony, sometimes nicknamed "Song of the Night," and in his sixth symphony, which also contains three "hammer blows of fate." This composer used poems by Friedrich Ruckert in one work for voice and orchestra, Kindertotenlieder, and he used poetry by Li Po in another, The Song of the Earth. For 10 points, name this Austrian composer of symphonies nicknamed "Resurrection" and "Titan." ANSWER: Gustav Mahler
10. One king of this name married Alexandra of Denmark and was the son of Prince Albert and Queen Victoria. The son of Alfred the Great of this name was known as "the Elder," and the brother of Ethelred the Unready was known as "the Martyr." The sixth king of this name was the son of Jane Seymour, and the fourth king of this name fought Henry VI in the Wars of the Roses. For 10 points, give this British name common to "Longshanks" and "the Confessor." ANSWER: Edward
11. In Wales, this phenomenon results in an unstable region known as the Bitches where extreme sports are often played, while in Brazil this phenomenon results in the Pororoca. This phenomenon does not occur at amphidromic points, and it can cause a related phenomenon known as a bore. This phenomenon can be estimated using the Rule of Twelfths, and it includes neap and spring types. Strongest at the Bay of Fundy and caused by the sun and moon's gravity, this is, for 10 points, what phenomenon associated with the rising and lowering of coastal water?
ANSWER: tide [or tidal oscillation; or tidal forces; accept word equivalents]
12. A letter in this novel declares that "all human wisdom is contained in" the words "wait and hope." An Albanian woman in this novel was sold into slavery after the betrayal of her father, Ali Pasha of Janina. One character, formerly first mate on M. Morrel's ship, the Pharaon, uses his wealth to ruin the man who falsely accused him of being a Bonapartist, Danglars. That title character had learned of the fortune of Abbé Faria during his imprisonment at the Chateau d'If. For 10 points, name this novel about Edmond Dantes, a work of Alexander Dumas, père. ANSWER: The Count of Monte Cristo [or Le Comte de Monte Cristo]
13. This thinker wrote that critics must strive to be free of prejudice when judging art in "Of the Standard of Taste." He asserted that resemblance, contiguity, and causation were the three principles of the association of ideas, which he compared to the law of gravitation. He argued that all ideas come directly from experience, known as his Copy Principle, and his challenge to induction supposedly woke up Kant from a "dogmatic slumber." For 10 points, name this author of An Enquiry Concerning Human Understanding, a skeptical Scottish philosopher.
ANSWER: David Hume
14. This artist depicted an omelette hanging from the sky in Eggs on a Plate Without a Plate. He painted a Self Portrait with Grilled Bacon and showed an optical illusion with the title animals in a lake. In addition to Swans Reflecting Elephants, he painted a horse and many spindly-legged elephants approaching the title figure in his The Temptation of St. Anthony, and he worked with Luis Buñuel on the film Un Chien Andalou. He also painted a barren landscape with melting clocks. For 10 points, identify this Spanish surrealist who painted The Persistence of Memory. ANSWER: Salvador Dalí [or Salvador Domingo Felipe Jacinto Dalíi i Domènech, First Marquis of Púbol]
15. One man with this last name worked with Gouverneur Morris to sell the idea of the Erie Canal as governor of New York. Another was the first vice president to die in office, serving under James Madison. Those men, DeWitt and George, were unrelated to another man with this surname who was president when Newt Gingrich created the "Contract with America." That man also was president during the Oklahoma City bombing and was accused of perjury in the Monica Lewinsky scandal. For 10 points, give this last name of Bill and Hillary Rodham. ANSWER: Clinton
16. The Zeisel method can test for the presence either of esters or of these compounds. Anisole contains this functional group, and THF and dioxane are two of them commonly used as solvents. Two primary alcohols can be reacted with an acid catalyst in a condensation reaction to create these compounds. One cyclic variety is called "crown" ones, and reacting primary alkyl halides with alkoxides is the Williamson synthesis of these. For 10 points, name this class of organic compounds of the form R-O-R prime, one of which was once used as an anaesthetic. ANSWER: ether
17. In one of his novels a dog falling out of an airplane causes Helen Ledwidge to break up with Anthony Beavis. In another of his works the poet Denis Stone stays at the title country mansion of Henry Wimbush. In addition to Eyeless in Gaza, this author of After Many a Summer Dies the Swan wrote a novel in which John the Savage hangs himself in a lighthouse after returning to civilization with the Alpha Bernard Marx. For 10 points name this British author of Chrome Yellow and Brave New World.
ANSWER: Aldous Leonard Huxley
18. Experiments by both Regener and Rutherford and Geiger attempted to determine this value from radioactive data; however, their results were nine orders of magnitude off. The quantum Hall effect is quantized in units of Planck's constant over this constant. Harvey Fletcher played a critical role in the experiment first determining this value, though Robert Millikan got much more credit for finding this value in the oil drop experiment. For 10 points, name this smallest possible value of charge.

## ANSWER: fundamental charge [or elementary charge; or charge of an electron]

19. Prior to being released by the warlord Chiang Fa-k'uei, this man wrote his Notebook from Prison, and under the name of Ly Thuy, this man organized the Thanh Nien association. His eight-point petition failed to gain equal rights for his country's citizens at the Versailles Conference, and this founder of the Viet Minh organized the Viet Cong to undermine the government of Ngo Diem. For 10 points name this communist revolutionary who led North Vietnam from 1954 to 1969.
ANSWER: Ho Chi Minh [or Nguyen Tat Thanh; or Nguyen Ai Quoc; prompt on Ly Thuy before mention; prompt on Nguyen Sinh Cung;]
20. This play's protagonist rips up a piece of paper yelling "vengeance writes the law" after Ezekiel Cheever finds a poppet stuck with a needle, and later one character dies by having stones piled on his chest, only to request "more weight." That character, Giles Corey, appears in this play's first act, which also sees Samuel Parris force Tituba to admit she led a ceremony in the forest during which Abigail Williams drank blood. For 10 points, name this play ending with John Proctor being led to his execution during the Salem Witch Trials, written by Arthur Miller. ANSWER: The Crucible
21. One conference at this location was said to "dance, but never move." During the revolutions of 1848 , the people of this city forced the resignation of Klemens Wenzel from his position as minister of state. Turkish forces attempting to seize this place were forced back by an early winter, and fortifications built after that siege allowed the withstanding of a second attack until forces under Jan Sobieski could save the day. For 10 points, name this home of the Eastern Hapsburgs, also the capital of Austria.

## ANSWER: Vienna

22. The title woman and Carlos have a torrid affair in this author's semi-autobiographical Diana: The Goddess Who Hunts Alone, and a historian becomes infatuated with a green-eyed woman in his novel Aura. He wrote of Federico Robles and Ixca Cienfuegos in Where the Air is Clear, and the title character is murdered by General Arroyo in this author's The Old Gringo. Another work by this author details the last moments of the titular corrupt businessman and revolutionary. For 10 points, name this Mexican author of The Death of Artemio Cruz. ANSWER: Carlos Fuentes
23. The complex version of this mathematical function is multi-valued every two pi i and hence requires a "branch cut." If the argument of one of these functions is raised to the c power, one can move $c$ to the front of the function, while the sum of two functions of this type may be rewritten as a single function with the original arguments multiplied together. Any function of this type equals zero when evaluated at one, as any number raised to the zero power is one. For 10 points, name these inverses of exponential functions, which often use the "natural base" e.

ANSWER: logarithms [or logarithmic functions]

## 金 HSAPQ <br> High School Academic Pyramid Questions <br> 2008-2009 <br> ACF-Format Set \#4 Round 15 <br> Bonuses

1. Its increase with temperature is described by the Clausius-Clapeyron equation. For 10 points each:
[10] Name this quantity, which, when equal to atmospheric pressure, defines the point at which liquids boil.
ANSWER: vapor pressure
[10] Vapor pressure, like boiling point elevation and freezing point depression, is one of this set of substance characteristics that depend on the number of solute particles in a volume of solvent.
ANSWER: colligative properties
[10] This law states that the vapor pressure of a solution is equal to the sum of the mole fraction of each component times the vapor pressure of the pure component.
ANSWER: Raoult's law
2. Name these battles fought by Napoleon for 10 points each.
[10] This 1815 battle during which Wellington and Blucher defeated Napoleon once and for all in Belgium ended the Hundred Days.
ANSWER: Waterloo
[10] This massive 1812 battle outside of Moscow saw Napoleon defeat the Russians under Kutuzov, but at heavy losses.
ANSWER: Borodino
[10] Fought just after Napoleon was made First Consul, this 1800 battle in Italy ended with defeat for the Austrians under von Melas.
ANSWER: Marengo
3. This work states that "If we admit that human life can be ruled by reason, the possibility of life is destroyed." For 10 points each:
[10] Name this novel that ends with two weddings between Maria and Nikolai and Natasha and Pierre.
ANSWER: War and Peace
[10] This Russian author of War and Peace also wrote such works as The Death of Ivan Ilyitch. ANSWER: Leo Tolstoy
[10] This Tolstoy novel begins with the statement "Happy families are all alike" and ends with the title character's suicide by train.
ANSWER: Anna Karenina
4. Nedda sings Stridono lassu to express her desire to flee with her lover Silvio. For 10 points each:
[10] Name this opera that contains the famous Vesti la giubba and a murder during a commedia dell'arte performance.
ANSWER: I Pagliacci [or The Clowns]
[10] This composer of I Pagliacci also wrote a version of La bohème and an opera in which Zaza, the titular singer, discovers that her lover is married.
ANSWER: Ruggerio Leoncavallo
[10] Leoncavallo also wrote an opera about some conspiracies involving this titular family. A certain Lorenzo the Magnificent makes an appearance as a baritone role.
ANSWER: Medici
5. Answer some questions about Ovid's Metamorphoses, for 10 points each.
[10] This father of Phaeton swears to give him anything he wants, to prove that he's really Phaeton's father. Phaeton asks to drive this god's chariot.
ANSWER: Helios
[10] Phaeton doesn't control the chariot well, and to keep everyone safe, this deity strikes him down.
ANSWER: Zeus
[10] Not all the stories in Metamorphoses end poorly, the story of this old married couple ends with their wish to die at the same instant being granted, and they are turned into an intertwined oak and linden tree. Name both.
ANSWER: Baucis and Philemon [accept either order]
6. This phenomenon can be measured by the modified Mercali scale. For 10 points each: [10] Name this thing that happens when two tectonic plates rub against each other. ANSWER: earthquake
[10] Massive earthquakes are common in these areas, where one tectonic plate plunges beneath another plate.
ANSWER: subduction zone
[10] In 1755, this European capital was almost completely destroyed after a massive earthquake that was followed by a massive tsunami.
ANSWER: Lisbon [or Lisboa]
7. He was excommunicated in 1955 due to his anticlerical policies. For 10 points each:
[10] Name this Argentinian strongman whose popular wife was Eva.
ANSWER: Juan Perón
[10] This group of "shirtless ones" consisted of lower class workers who were organized into a strong political faction against the estancieros by Eva and Juan Perón.
ANSWER: descamisados
[10] This other wife of Juan Perón was president of Argentina from 1974 to 1976. Her reign was undermined by the corruption of her social welfare minister Lopez Rega and a terrible economy.
ANSWER: Isabel Perón
8. This author used an episode of Roman history in his poem The Rape of Lucrece. For 10 points each:
[10] Name this British playwright of Titus Andronicus, Timon of Athens, and Macbeth.
ANSWER: William Shakespeare
[10] This Shakespeare play concerns the confusion caused by a two pairs of identical twins from Ephesus and Syracuse.
ANSWER: The Comedy of Errors
[10] The Comedy of Errors was based on Menaechmi, a Latin play by this author of The Pot of Gold.
ANSWER: Titus Maccius Plautus
9. A trumpet asks "the perennial question of existence" in this American composer's Unanswered Question. For 10 points each:
[10] Name this former insurance salesman and composer of Three Places in New England.
ANSWER: Charles Ives
[10] This other American composer of Vanessa and Knoxville, Summer 1915 also wrote a string quartet famous for its extremely melancholy second movement.
ANSWER: Samuel Barber
[10] That second movement was reworked into this composition, which peaks at a fortissimo before a moment of complete silence and is often played at times of mourning.
ANSWER: Adagio for Strings
10. During the diet of this city, a document was produced that was responded to by the Catholic Confutation. For 10 points each:
[10] Name this city, that gives its name to an apology and a confession of the beliefs of a Protestant sect written by Philip Melancthon.

## ANSWER: Augsburg

[10] The Augsburg Confession outlines tenets of the Protestant sect created by this man. He debated Tetzel about indulgences, and wrote the 95 theses, sparking the Protestant Reformation.
ANSWER: Martin Luther
[10] Martin Luther initially posted the 95 theses on the door of this church. It names a concord drawn up by Melancthon, and Martin Luther was originally a monk here.
ANSWER: Wittenberg
11. For 10 points each, identify these plant hormones.
[10] Foolish seedling disease results from overproduction of one example of these plant growth hormones, which stimulate stem and root growth.
ANSWER: gibberellins [or gibberellic acid]
[10] This plant hormone inhibits shoot growth and induces and maintains dormancy. It also promotes leaf falling.
ANSWER: abscisic acid [or dormin]
[10] This gaseous hormone promotes flower opening and fruit ripening. It's the simplest alkene, containing only two carbons.
ANSWER: ethene [or ethylene]
12. Name these South American waterways for 10 points each.
[10] This river is the second longest on the continent behind the Amazon. The Itaipu Dam project on this river was completed in 1982, submerging the Guaira Falls.
ANSWER: Rio Parana
[10] The Parana is known as the Alto Parana until it converges with this river, which rises in the Grosso region of Brazil before flowing through its namesake country.
ANSWER: Rio Paraguay
[10] Located between Argentina and Uruguay is this large estuary that receives the waters of the Parana and Uruguay Rivers. Montevideo and Buenos Aires are both on its shores.
ANSWER: Rio de la Plata
13. Name these battles of World War I for 10 points each.
[10] This battle in France that lasted for most of 1916 saw Robert Nivelle exclaim "They shall not pass" and secured the fame of Henri Petain.
ANSWER: Verdun
[10] A counterattack by the allies under Joffre in1914 at this site ensured the failure of the Schlieffen Plan, and another battle was fought here in 1918.
ANSWER: Marne
[10] There were four battles at this Belgian site, the second of which saw the first large-scale use of poison gas.
ANSWER: Ypres
14. He wrote that "the world is too much with us" and "little we see in Nature that is ours" in one poem. For 10 points each:
[10] Name this English poet who "wandered lonely as a cloud" when observing the titular flowers in "Daffodils."
ANSWER: William Wordsworth
[10] Wordsworth visited the title location "five summers with the lengths of five long winters" before he returned to write this poem addressed to his sister Dorothy.
ANSWER: "Lines Composed a Few Miles above Tintern Abbey on Revisiting the Banks of the Wye during a Tour, July 13, 1798"
[10] This other Wordsworth poem begins "There was a time when meadow, grove, and stream/ The earth, and every common sight/ To me did seem/ Apparelled in celestial light" and discusses the "child among his new-born blisses."
ANSWER: "Ode: Intimations of Immortality from Recollections of Early Childhood"
15. Answer the following about property for 10 points each.
[10] Marx lampooned this man's The Philosophy of Poverty in a similarly titled work. This man is better known for answering the question of his What is Property? with "theft."
ANSWER: Pierre-Joseph Proudhon
[10] These positive or negative economic impacts are said to infringe on personal property, such as one's lungs in the case of pollution. Pigouvian taxes attempt to diminish them.
ANSWER: externalities [accept word forms]
[10] The construction of public utilities and forms of transportation are allowed by the state's exercise of this power to expropriate private property without the owner's consent. ANSWER: eminent domain [or compulsory purchase; or resumption; or compulsory acquisition]
16. At the bottom right of this painting, a tiny man can be seen reading off a scroll. For 10 points each:
[10] Identify this painting which shows various figures gathered around the title figure, who holds a rather large baby Jesus on her lap.

## ANSWER: Madonna with the Long Neck [or Madonna del Collo Lungo]

[10] Madonna of the Long Neck was painted by this Italian painter who also painted Self Portrait in a Convex Mirror.
ANSWER: Parmigiano [or Parmigianino; or Francesco Mazzola]
[10] Parmigiano was an important artist of this movement. Works from this movement are characterized by subjects with exaggerated body parts and contorted postures.
ANSWER: mannerism
17. It is caused by intermolecular forces of the molecules of a liquid at an interface. For 10 points each:
[10] Name this quantity, which is measured in dynes per centimeter.

## ANSWER: surface tension

[10] This is the general name given to substances that lower surface tension.
ANSWER: surfactant
[10] In this type of motion, surface tension causes the pull of a liquid from the meniscus up a namesake type of small tube.
ANSWER: capillary action
18. Its name was derived from the Quechua word for "navel," and it was the capital of the Realm of the Four Parts. For 10 points each:
[10] Name this onetime imperial capital that was laid out in the shape of a puma and currently lies under the fortress of Sacsahuaman.
ANSWER: Cuzco
[10] Cuzco was the capital of what South American empire whose ruling family was supposedly founded by Manco Capac and whose members included Huayna Capac?
ANSWER: Incan Empire
[10] Almost immediately after his victory over his brother Huascar, this man was captured by Spanish forces at Cajamarca and was strangled shortly after offering Pizarro a roomful of gold. ANSWER: Atahualpa
19. This poet told the title character of his poem "Luke Havergal" to "go to the Western Gate." For 10 points each.
[10] Name this American creator of Tillbury Town.
ANSWER: Edwin Arlington Robinson
[10] This Robinson poem concerns a "gentleman from toe to crown" who "one calm summer night/ Went home and put a bullet through his head."
ANSWER: "Richard Corey"
[10] The title character of this Robinson poem is a "child of scorn" who "coughed and called it fate, and kept on drinking."
ANSWER: "Miniver Cheevy"
20. Kennesaw Mountain Landis claimed that this club's 1919 team was the "most formidable machine I have ever seen." For 10 points each:
[10] Name this team, which defeated the White Sox in a World Series marred by the Black Sox scandal and whose dominant teams of the seventies included Bernie Carbo and Johnny Bench. ANSWER: Cincinnati Reds [accept either]
[10] This former Yankee left fielder managed the Reds during their 1990 World Series run, in which Cincinnati defeated the heavily favored Oakland As. He currently manages the Cubs. ANSWER: Lou Piniella
[10] This former Reds owner became notorious for her frequent racist and homophobic statements. She was banned from involvement in day-to-day operations of the Reds in 1996 when she made favorable comments about Hitler.

## ANSWER: Marge Schott

21. Name some metals important in biology for 10 points each.
[10] This metal is found at the center of the porphyrin ring in chlorophyll. ATP must be bound to this metal to be biologically active.
ANSWER: magnesium [or $\mathbf{M g}$ ]
[10] The porphyrin ring in heme contains this metallic element that is overabundant in the liver in hemochromatosis.
ANSWER: iron [or Fe]
[10] Wilson's disease is the overabundance of this metal in the body. Two atoms of this metal are at the center of cytochrome c oxidase.
ANSWER: copper [or Cu ]
22. In this attack, planned by Isoroku Yamamoto, the Arizona was completely destroyed and the Oklahoma capsized. For 10 points each:
[10] Name this naval base in Hawai'i that was attacked on December 7th, 1941 by the Japanese. Immediately after this attack, the United States entered World War II.

## ANSWER: Pearl Harbor

[10] This island was invaded by Americans during World War II. Kamikazes sank the Bismarck Sea here, and the Americans captured Mount Surubachi.
ANSWER: Iwo Jima
[10] During this battle, Frank Fletcher attacked the Japanese forces landing at Tulagi. It headed off the Japanese invasion of Port Moresby.
ANSWER: Coral Sea
23. He wrote of scientist Kaarlo Valkonen's decision to join the army medical corps rather than flee Finland during the Soviet invasion in There Shall Be No Night. For 10 points each:
[10] Name this dramatist, who wrote Idiot's Delight and described Alan Squier sacrificing himself to Duke Mantee to get life insurance money for Gabby Maple in The Petrified Forest. ANSWER: Robert Sherwood
[10] Sherwood wrote a play about this historical figure "in Illinois," and he was elegized by Whitman in "When Lilacs Last in the Dooryard Bloom'd" and "Oh Captain, My Captain." ANSWER: Abraham Lincoln
[10] Sherwood's script for The Best Years of Our Lives was based on this author's Glory for Me. This author is best known for writing about the titular Confederate prison in Andersonville. ANSWER: MacKinlay Kantor

