



High School Academic Pyramid Questions

2008-2009  
Four Quarter Set

Round 3

First Quarter:  
Ten Tossups

1. Arndt-Eistert Synthesis reacts activated carboxylic acids with the diazo- variety of this molecule. This compound binds to a halogen radical in a common example of a free radical chain reaction. When its analogous functional group bonds to benzene, the result is toluene, and chloroform results in three chlorine atoms replacing three of its hydrogen atoms. For 10 points, name this prominent component of natural gas, the simplest alkane with a chemical formula of  $\text{CH}_4$ .

ANSWER: methane [accept  $\text{CH}_4$  before read]

2. Its extensions include the Springfield and Salem plateaus and the Cookson Hills. Lakes Taneycomo and Table Rock were formed by damming up a waterway which begins in this range, the White River. The Sac River and the Pomme de Terre, a tributary of the Osage River, both form in this range, and the Bell and Taum Sauk peaks are among the highest in its Saint Francois subrange. With prominent peaks including Turner Ward Knob and Mount Magazine, for 10 points, name this parent range of the Boston Mountains, found in Missouri and Arkansas.

ANSWER: Ozark Mountains

3. This man's reign saw the formation of the *cohortus urbanae*, which was a regular police force, and the *aerarium militare*, the military treasury. This man entered public life by delivering a funeral oration for his grandmother Julia, and he forced the widow of Agrippa to marry Tiberius. The chief beneficiary of the victory at the Battle of Actium, his adopted father was Julius Caesar, and he formed the Second Triumvirate with Marcus Lepidus and Mark Antony. For 10 points, name this first Roman Emperor.

ANSWER: Caesar Augustus [or or Octavian; or Gaius Julius Caesar Octavianus]

4. This show's main figure worked at the French Laundry and plays in the indie instrumental band "so I had to." Events covered in this show include the Wet Your Whistle Benefit, Lebowski Fest VII, and the *Kung Fu Panda* premiere. Its fourth episode saw the invention of rice-krispie cannoli, and people featured in this show include Mary Alice Fallon Yeskey. Duff Goldman stars in, for 10 points, what Baltimore-based program in which edible replicas of Radio City Music Hall, Wrigley Field, and the Stanley Cup have been baked and covered with icing?

ANSWER: Ace of Cakes

5. Erwin hands a clay figurine to his anti-superstitious friend Friedrich in this man's short story "Within and Without." Tu Fu and Louis attempt to help their friend, the title painter, in his novel *Klingsor's Last Summer*, and Pistorius becomes the mentor of Emil Sinclair, who searches for the title character in his *Demian*. Joseph Knecht's successor to the title of Magister Ludi narrates his *Glass-Bead Game*, and a better known novel ends when Hermine is stabbed by the title character, Harry Haller. For 10 points, name this German author of *Steppenwolf* and *Siddhartha*.

ANSWER: Herman Hesse

6. Reduced expression of SEMA3F protein is identified with the formation of tumors in this organ. Though it is not the kidney, the hilum is the spot where nerves and other vessels enter this organ. The mediastinum separates the pleural cavities that house the left and right of these organs. The horizontal fissure is present in the right one but not the left, so the right one contains a middle lobe in addition to the superior and inferior lobes found in the left one. For 10 points, identify this organ containing sacs called alveoli which allow for exchange of gases.

ANSWER: lungs

7. This thinker claimed that Africa had no movement or development, and therefore was not a "historical part of the World" in his *Lectures on the Philosophy of History*. He divided the title concept into "abstract right," "morality, and "ethical life" in his *Elements of the Philosophy of Right*. He developed a method later described with the terms "thesis," "antithesis," and "synthesis" that he used to analyze the master/slave relationship. For 10 points, name this German philosopher who theorized the dialectic and wrote *The Phenomenology of Spirit*.

ANSWER: Georg Wilhelm Friedrich Hegel

8. In one of his novels, the revolutionary Sandip attracts the attentions of Bimala, the wife of the noble Nikhil, while he depicts the decline of the Chatterjees and rise of the Ghosals in *Jogajog*. Also the author of the novel *The Home and the World*, he may be better known as the poet who wrote both the Bangladeshi and Indian national anthems, as well as a collection of "song offerings" which was introduced to the English-speaking audience by W.B. Yeats. For 10 points, identify this Bengali poet of *Gitanjali*.

ANSWER: Rabindrath Tagore [or Gurudev]

9. Prior to this engagement, Richard Gridley created the design for a redoubt, and shortly after, admiral Samuel Graves bombarded the enemy fortifications from the *HMS Somerset*. Resulting in the deaths of James Abercrombie, John Pitcairn and Joseph Warren, this battle included an assault between Moulton and Copp Hills by Robert Pigot. A loss for Israel Putnam and William Prescott, for 10 points, name this Pyrrhic victory for William Howe in 1775, actually fought on Breed's Hill on the Charleston Peninsula of Boston.

ANSWER: Battle of Bunker Hill [accept Battle of Breed's Hill before it is read]

10. A similar scene to the one in this painting is *Puerto Rican Wedding* by Roger Brown, and a spoof of it featuring Marilyn Monroe, Humphrey Bogart, James Dean and Elvis Presley is known as *Boulevard of Broken Dreams* by Gottfried Helnwein. No doors are visible in it, and one figure is seemingly trapped in a triangular structure, while a couple in red and black are seated. It depicts Greenwich Village in the aftermath of Pearl Harbor and includes an advertisement for Phillies cigars. For 10 points, name this diner scene by Edward Hopper.

ANSWER: Nighthawks



# HSAPQ

High School Academic Pyramid Questions

2008-2009  
Four Quarter Set

Round 3

Second Quarter:  
Ten Tossups  
with Bonuses

1. He wrote about Harry Trellman, who loves Amy Wustrin, in *The Actual*, and another of his title characters is scarred by Morris Abt's abuse of a hypnotized Minna Servatius in a novel consisting of Joseph's diaries. In addition to *Dangling Man*, he wrote about a Connecticut native who, with the help of Romilayu, becomes leader of the Arnewi tribe in Africa, and another of his title characters follows Thea Fenchel to Mexico to nurture an eagle before marrying Stella Chesney. For 10 points, name this author of *Henderson the Rain King* and *The Adventures of Augie March*.

ANSWER: Saul **Bellow** [or Solomon **Bellows**]

BONUS. Name these Italian cities, for 10 points each.

[10] This city is home to the Trevi Fountain, and its pantheon was converted from a temple into a church. This home to the Flavian Coliseum is the capital of Italy.

ANSWER: **Rome** [or **Roma**]

[10] The Pirelli building is one site in this wealthy northern city, which is the capital of Lombardia.

ANSWER: **Milano**

2. Rotating ones have limited ranges of velocity, which is a function of the distance from the vortex. It was originally proposed that all condensates of bosonic particles at ground states are *these*. Lev Landau proposed an important theory about the phenomenon associated with them, which is exemplified by capillary action overcoming gravity to allow these materials to creep up the walls of a container. Below the lambda point, helium is one of these objects. For 10 points, identify these substances that exhibit zero viscosity.

ANSWER: **superfluids** [accept word forms such as **superfluidity**]

BONUS. One function that models this phenomenon is the Hicksian function. For 10 points each:

[10] Name this economic concept, often paired with supply.

ANSWER: **demand**

[10] Hicksian, or compensated demand, is often contrasted with the uncompensated function of demand named after this economist, who also worked with Jevons on marginal utility.

ANSWER: Alfred **Marshall** [or **Marshallian** demand function]

3. This composer's "Tuba Mirum" movement makes use of the four brass bands at different ends of the stage for his Requiem, while he was commissioned by Paganini to write a viola solo for *Harold in Italy*. His most famous work uses an *idée fixe* to represent a woman he saw at a ball, and that work ends with depictions of an opium trip with a "March to the Scaffold" and "Witches Sabbath." For 10 points, name this composer of the *Symphony Fantastique*.

ANSWER: Louis-Hector **Berlioz**

BONUS. In eukaryotes, these bonds only form in the lumen of the endoplasmic reticulum. For 10 points each:

[10] Name these bonds that stabilize the tertiary structure of proteins.

ANSWER: **disulfide** bonds

[10] Disulfide bonds are almost always found between two instances of this amino acid.

ANSWER: **cysteine**

4. This leader of the Dry faction came to power following the Winter of Discontent. This figure replaced Edward Heath as party leader, and the IRA's Brighton Bombing targeted this leader. Prior to entering politics, she worked as a chemist on the team that invented soft-serve ice cream. Later known as the "milk snatcher" for eliminating a free milk program for schoolchildren, she defeated James Callaghan and was succeeded by John Major. For 10 points, name this prime minister who won the Falklands War and was nicknamed the "Iron Lady" during her 1980s term.

ANSWER: Margaret **Thatcher**

BONUS. Name these works featuring Sherlock Holmes, for 10 points each.

[10] In this story, Mr. Stapleton is a rival heir to Sir Henry and hides the titular beast in the Grimpen Mire.

ANSWER: "The **Hound of the Baskervilles**"

[10] In this story Holmes learns that Jefferson Hope murdered Enoch Drebber and Joseph Strangerson, who had forced Lucy Ferrier into an unsuitable marriage when they were Mormons.

ANSWER: A **Study in Scarlet**

5. This organism includes a receptor tyrosine kinase known as Sevenless, and another protein named Boss, or Bride of Sevenless. Both of those proteins are found in its ommatidia. When this organism's four chromosomes were sequenced in 2000, it became the first insect to have its genome sequenced. Its white-eyed mutants were studied by Thomas Hunt Morgan. For 10 points, name this model organism in genetics research, whose scientific name is *Drosophila melanogaster*.

ANSWER: **fruit fly** [accept **Drosophila melanogaster** before read]

BONUS. It is overwhelmingly common in mythology and folklore for powerful characters to have a minor weakness. For 10 points each:

[10] This Greek hero finished sulking about Briseis just in time to kill Hector, desecrate his body, and get shot by Paris and die.

ANSWER: **Achilles**

[10] Hiranyakashipu could not be killed inside or outside, at day or at night, by man or beast, so a half-man, half-lion avatar of this god killed Hiranyakashipu in a doorway at dusk.

ANSWER: **Vishnu**

6. Zebulon Brockway helped establish this field in America, and its leading early member was Cesare Beccaria. Another member of this field, Cesare Lombroso, argued that certain people could be identified through atavistic physical features. Robert Merton applied the sociological theory of anomie to this field, which is also the focus of a book which analyzes "carceral systems" and the Panopticon, *Discipline and Punish*. For 10 points, name this field of social science which analyzes recidivism, prisons, and punishing those who break the law.

ANSWER: **criminology** [or **penology**]

BONUS. It is properly a set of three suites, and it eliminated the harpsichord from the traditional Baroque orchestra for convenience. For 10 points each:

[10] Identify this composition, popularly known for its “Air” passage and its bourrée, which was created for King George I.

ANSWER: **Water Music**

[10] Name this composer of *Water Music*, also known for his incidental music to *The Alchemist* and his *Messiah* oratorio.

ANSWER: Georg Frideric **Handel**

7. This figure climbed to the top of a mountain before challenging a monster to try and eat him, and afterwards cut out that monster’s heart from the inside, thus freeing his friends. Using the monster’s entrails he created men, while in another tradition, he kicked a ball of dirt or feces to accomplish the same goal. He boasted that he would be given the names Grizzly Bear, Eagle, or Salmon, while the Hopi usually associate him with Kokopelli. Also notable for freeing the buffalo, for 10 points, name this doglike trickster figure in Native American mythology.

ANSWER: **Coyote**

BONUS. Immediately preceding the English Civil War, these conflicts between England and Scotland were heavily influenced by religious differences. For 10 points each:

[10] Give the name for these two conflicts, the first of which was motivated by Scotland's decision to become officially Presbyterian, which share their name with a church office.

ANSWER: the **Bishops' Wars**

[10] This king of England during the Bishops' Wars was later deposed and executed during the English Civil War.

ANSWER: **Charles I** [prompt on **Charles**]

8. This man was not allowed to succeed to the Thembu throne because his mother was of the Left-Hand House, and later in life he gave the “I am Prepared to Die Speech” during the Rivonia Trial in response to allegations of terrorism after the Sharpeville Massacre. Sentenced to stay at Pollsmoor Prison and Robben Island, this man wrote the autobiography *Long Walk to Freedom* and was a co-founder of the Umkhonto we Sizwe or Spear of the Nation. For 10 points, name this ANC politician and successor to Frederick de Klerk as President of South Africa.

ANSWER: Nelson Rolihlahla **Mandela**

BONUS. Consider an object moving around in uniform circular motion. For 10 points each:

[10] This type of force points toward the center of the circle and is responsible for keeping the object from flying off on a tangent.

ANSWER: **centripetal** force

[10] The magnitude of this quantity, whose time derivative is torque, is constant for an object undergoing uniform circular motion.

ANSWER: **angular momentum** [do not accept or prompt on “momentum”]

9. This poet claimed the title phenomena came from the depth of some divine despair in his “Tears, Idle Tears” and noted that “after many a summer dies the swan” in his poem about a mythical Greek condemned to eternal life, “Tithonus.” In another poem, the narrator hopes “to see my pilot face to face” and in another a restless king decides “To strive, to seek, to find, and not to yield.” For 10 points, name this author of “Crossing the Bar” and “Ulysses” who wrote of the “Noble Six Hundred” from the Crimean War in “The Charge of the Light Brigade.”

ANSWER: Alfred Lord **Tennyson**

BONUS. Amended by Richard Olney and Luis Drago, this foreign policy statement was announced four years after the Adams-Onis Treaty. For 10 points each:

[10] Identify this policy, opposed by George Canning, which proclaimed that European countries were no longer allowed to colonize the Americas.

ANSWER: the **Monroe Doctrine**

[10] Announced in 1904, this amendment to the Monroe Doctrine stated that the U.S. had the right to intervene in the economic affairs of Caribbean nations if they did not pay their debts.

ANSWER: the **Roosevelt Corollary**

10. Construction of the Pascua Lama gold mines has caused a trade dispute between this country and its western neighbor. Its legislature approved the nationalization of the largest airline carrier in this country, Aerolineas. In October 2008, this country’s president attempted to nationalize \$26 billion worth pension funds, and that bill is championed by Labor minister Carlos Tomada, and it recently named a new coach to its national soccer team. For 10 points, identify this country currently led by Cristina Fernandez de Kirchner, and is home to Diego Maradona.

ANSWER: Republica **Argentina** [accept Republic of **Chile** before “western neighbor” is read]

BONUS. In this story, the wealthy farmer Mynheer Van Tassel disapproves of his daughter’s relationship with Ichabod Crane. For 10 points each:

[10] Name this short work in which a headless horseman terrorizes the title town.

ANSWER: “The **Legend of Sleepy Hollow**”

[10] Ichabod Crane rivals Brom Bones for the affections of this beautiful daughter of Mynheer Van Tassel.

ANSWER: **Katerina** Van Tassel



# HSAPQ

## High School Academic Pyramid Questions

2008-2009  
Four Quarter Set

Round 3

Third Quarter:  
Team Rounds

Choices: THE LETTER L  
PARIS

### THE LETTER L

Some answers in this round will begin with the letter L. Other parts will only have clues that use L words.

[10] This priest to Apollo, who was apprehensive of the Trojan horse due to fearing “Greeks, even bearing gifts,” was killed by two serpents sent by the gods.

ANSWER: Laocoön

[10] This procedure in calculus can be performed by Lebesgue and Riemann methods, and it is generally defined as finding the area under a curve.

ANSWER: integration [accept integral]

[10] Soemtimes known as Nimue, this figure in Arthurian legend bestows Excalibur on the king.

ANSWER: the Lady of the Lake

[10] This English king participated in the Eighth Crusade, but is better known for conquering Wales, dealing with the Scottish independence effort, and executing William Wallace.

ANSWER: Edward I [or Edward Longshanks]

[10] This state contains such rivers as the Vermillion and the Lafourche, but is better known for cities as Lafayette, Shreveport, and New Orleans.

ANSWER: Louisiana

[10] The presence of Lewy bodies is a clear indication of this disease, caused by insufficient dopamine, whose symptoms include tremors and posture disturbances. Michael J. Fox has it.

ANSWER: Parkinson’s Disease

[10] This opera focuses on the feud between the Ravenswood and Ashton families. It was adapted from a novel by Sir Walter Scott and was composed by Gaetano Donizetti.

ANSWER: Lucia di Lammermoor

[10] The former military governor of Louisiana, Benjamin Butler, later became the leader of this movement for cheap paper currency.

ANSWER: the Greenback movement/party

[10] Par Lagerkvist is an author from this country, whose other authors include one who wrote *The Dance of Death*, *A Dream Play*, *The Ghost Sonata*, and *Miss Julie*, August Strindberg.

ANSWER: Kingdom of Sweden

[10] This artist produced several posters and paintings of the can-can dancer La Goulue, however he is much better known for works such as *At the Moulin Rouge*.

ANSWER: Henri de Toulouse-Lautrec

## PARIS

This round concerns the history, culture, geography, and famous inhabitants of the city of Paris.

[10] One treaty signed at Paris ended this conflict, which saw the charges of both the Light and Heavy brigades.

ANSWER: **Crimean War**

[10] Paris features a studio of this Romanian sculptor, who created such works there as “The Kiss”. His famous series, “Bird in Space”, was taxed at the U.S. Customs, causing a court battle.

ANSWER: Constantin **Brâncuși**

[10] This long-time head of the Faculty of Sciences at Paris University expounded his idea of wave-particle duality in his 1924 thesis “Research on Quantum Theory”.

ANSWER: Louis **de Broglie**

[10] While in Paris, the protagonist of this novel falls in love with Odette’s daughter Gilberte and later feels attracted to Albertine. This long, multi-part novel is Marcel Proust’s best known.

ANSWER: **In Search of Lost Time** [or **À la recherche du temps perdu**; or **Remembrance of Things Past**]

[10] Antoine Lavoisier, a Paris scientist, put forth this law stating that the namesake property can neither be created nor destroyed. Because of it, a type of defect in nuclear reactions is calculated.

ANSWER: law of the **conservation of mass** [or **conservation of matter**]

[10] This king, who said “Paris is well worth a mass,” won the War of the Three Henrys and converted to Catholicism.

ANSWER: **Henry IV** of France [or **Henry III of Navarre**; prompt on **Henry**; prompt on **Henry III**]

[10] The source of the Seine, which runs through Paris, lies in this French and Swiss region with a namesake canal on which its capital of Dijon lies. A type of red wine is named for this region.

ANSWER: **Burgundy**

[10] This Parisian philosopher wrote *Being and Nothingness* as well as *Existentialism is a Humanism*. He influenced and was influenced by Camus, de Beauvoir, and Merleau-Ponty.

ANSWER: Jean-Paul **Sartre**

[10] This man created Chad Newsome, an American expatriate living in Paris in *The Ambassadors*. His other works include *The Bostonians* and *Daisy Miller*.

ANSWER: Henry **James**

[10] Although admitted to the École Polytechnique in Paris, this man is more famous for coining the terms “sociology” and “altruism” and for expounding the theory of positivism.

ANSWER: Isidore Marie Auguste François Xavier **Comte**



# HSAPQ

High School Academic Pyramid Questions

2008-2009  
Four Quarter Set

Round 3

Fourth Quarter:  
Ten Tossups

1. In one story, he traveled to Egypt with his wife and claimed she was his sister, letting her join the pharaoh's harem. He paid tithes to the priest Melchizedek, and is buried in Machpelah underneath a mosque. His wife was visited by angels whom she served unleavened bread, and his grandson wrestled with an angel after stealing Esau's birthright. This merchant from Ur helped rescue Lot from a raiding party, and his wife's handmaid Hagar bore him a child. For 10 points, name this husband of Sarah who fathered Ishmael and almost sacrificed Isaac.

ANSWER: **Abraham**

2. A czardas titled "Sounds from home" plays in the second act of this opera. Adèle pretends she is an actress, and earlier sings the aria "My sister writes to me" to excuse herself to attend a ball to which another character is also invited through "Come with me to the *souper*." That ball is actually revenge for a character's abandoning of Falke in the center of town, dressed as the title animal. Eisenstein finally serves his prison sentence in the office of Governor Frank at its finale. For 10 points, name this Johann Strauss opera about a bat.

ANSWER: *Die **Fledermaus*** [accept *The **Bat*** before it is read]

3. After serving onboard the *USS Monterey* during World War Two, this man wrote a biography of Lee Harvey Oswald as a member of the Warren Commission. This man's press secretary Jerald ter-Horst resigned over his Proclamation 4311, and both Donald Rumsfeld and Dick Cheney originally served in his administration. The *Mayaguez* incident occurred during his Presidency, and both Sara Jane Moore and Squeaky Fromme tried to assassinate him. For 10 points, name this man who was elevated to high office by the resignation of Richard Nixon.

ANSWER: Gerald Rudolph **Ford** [accept Leslie Lynch **King** before it is read]

4. The title character of this novel is called "Daisy" by Steerforth, who deserts Emily after she leaves Ham for him. A coachman asks the protagonist to propose to the family servant for him, saying "Barkis is willin'." Mr. Wickfield is blackmailed by his partner, the greedy Uriah Heep, whose scheme is discovered by Wilkins Micawber. This work chronicles the title character's maturation, from working for Mr. Murdstone to loving Dora Spenlow and finally marrying Agnes Wickfield. For 10 points, identify this semi-autobiographical novel by Charles Dickens.

ANSWER: **David Copperfield**

5. Frobenius's Theorem states that a real division algebra has a maximum of this many dimensions, and William Hamilton first described such a division algebra with this many total dimensions, which contains imaginary numbers represented as  $i$ ,  $j$ , and  $k$ . The Heawood conjecture was proven for segmented planes to show that this many colors are sufficient to shade a map so that no same-colored regions bound each other. For 10 points, name this smallest composite number, which is the square of the only even prime.

ANSWER: four

6. The armed camp known as the Sich was their base, and their senior officers were known as *starshyna*. One of their leaders, Bohdan Khmelnytsky, concluded the Pereyaslav Agreement, and their supreme assembly was known as the *rada*. Their commander-in-chief was known as a hetman. Originating in the steps of the Ukraine, for 10 points, identify these peasant-soldiers who received privileges from the tsars in exchange for military service.

ANSWER: Cossacks [or Kazaki; or Kozaky]

7. This man painted a man pointing at a cup on a counter as his hat falls off in *The Soldier Drinks*. He depicted a two headed man looking away from the Eiffel tower in one painting, and another work shows a man flying over clouds as the title figure dressed in purple stands on two houses. In addition to *Paris Through the Window* and *The Green Violinist*, he painted *The White Crucifixion*, while his best known work features an upside down woman with a violin and a man feeding a flower to a goat. For 10 points, identify this artist of *I and the Village*.

ANSWER: Marc Chagall

8. The person who conducted this experiment explained its results through agentic state theory. During this experiment, subjects read pairs of vocabulary words after being assigned the role of teacher. The person who conducted this experiment responded to objections by saying "The experiment requires you to go on." It was conducted at Yale after the trial of Adolf Eichmann, and sixty-eight percent of its subjects delivered the maximum of 450 volts. For 10 points, identify this psychological experiment that tested the power of authority figures.

ANSWER: Milgram obedience experiment [or obedience experiment]

9. Materials exhibiting the "anti" version of this can interact with materials exhibiting this property via exchange bias. This property occurs in regions that are separated by Bloch and Neel walls, and when this property waxes or wanes, those domains change sizes and cause popping noises known as the Barkhausen effect. The lag in this property is known as hysteresis, and this property occurs below the Curie temperature. For 10 points, name this phenomenon exhibited by nickel, cobalt, and its namesake material, iron.

ANSWER: ferromagnetism [or ferromagnetic; prompt on magnetism]

10. He addresses one subject by saying, "thou watchest the last ooziings hours by hours," and in one of his ballads, he writes of Lycius, who falls in love with a disguised serpent named Lamia. In an incomplete epic by this author, the title character asks, "Saturn is fallen, am I too to fall?" This author of *To Autumn* and *Hyperion* asked "what can ail thee" in another poem, and asks "do I wake or sleep?" in "Ode to a Nightingale." For 10 points, name this author of "The Eve of St. Agnes" and "La Belle Dame san Merci."

ANSWER: John Keats