



HSAPQ

High School Academic Pyramid Questions

2008-2009
Four Quarter Set

Round 15

First Quarter:
Ten Tossups

1. Ports on this body include Wawa, Aura and Illgen City, while on its shore lies the Sleeping Giant formation, Pukaskwa National Park, and Pictured Rocks National Lakeshore. Fed by the Brule, Kaministiquia and Nipigon Rivers, this body has portions named Agawa and Whitefish Bays while the Keeweenaw Peninsula juts into it. Called Gichigami or “big water” by the Ojibwe, this lake contains the Apostle Islands, including Madeleine Island, and Isle Royale, while the St Marys River connects it to Lake Huron. For 10 points, name this largest of the Great Lakes.

ANSWER: Lake **Superior**

2. Unlike the Einstein model, the Debye model properly models how this quantity changes for a substance as temperature decreases, though for higher temperatures it may be derived from a crystal's lattice vibrations through the Law of Dulong and Petit. For a monatomic ideal gas, it is three halves times the ideal gas constant, while that factor is seven-halves for a diatomic ideal gas. For 10 points, identify this quantity, the amount of energy necessary to increase the temperature of a unit quantity of a substance by a unit amount.

ANSWER: **specific heat** capacity

3. The title character of this novel has a wife named Jewel and a servant named Tamb'Itam. The title character meets his downfall when he makes a deal with Gentleman Brown, leading to the death of Dain Warris and the wrath of Doramin, the leader of a group of Patusan natives. The protagonist is on Patusan attempting to gain redemption for his earlier cowardice in abandoning a group of Muslim pilgrims on the *Patna*. For 10 points name this work by Joseph Conrad.

ANSWER: **Lord Jim**

4. This man's *Tractatus de primo principio* discussed what reason can prove about God, and he claimed that universal concepts are based on a common nature among individuals. This man formulated the defense of the doctrine of Immaculate Conception, and he wrote *A Treatise on God as First Principle*. This man wrote several commentaries on the *Sentences* of Peter Lombard known as the *Ordinatio*, and he was nicknamed the Subtle Doctor. For 10 points name this philosopher of the Middle Ages, whose name was later used to describe dim-witted students.

ANSWER: John **Duns Scotus**

5. Early in his reign, this man's advisor Attiantus persuaded him to execute Lusius Quietus, and he later created a parliament known as the Panhellenion. The builder of a villa at Tibur, this man had the architect Apollodorus of Damascus put to death for describing his blueprints as “pumpkins.” This man married Vibia Sabina at the behest of Pompeia Plotina, and he later faced the rebellion of Simon bar Kokhba in Judaea. For 10 points, name this predecessor of Antoninus Pius and successor to Trajan, a Roman Emperor for whom a namesake British wall was built.

ANSWER: Publius Aelius **Hadrianus**

6. Near the end of this movie, a confiscated sea mine explodes, and the main antagonist is impaled on a model church spire after a car chase. Its two protagonists spend time chasing an escaped swan across Sandford before learning of a series of murders orchestrated by the Neighborhood Watch Alliance, led by the Timothy Dalton-portrayed Simon Skinner. The second movie in the "Blood and Ice Cream Trilogy" after *Shaun of the Dead*, for 10 points, identify this 2004 film starring Nick Frost as Danny Butterman and Simon Pegg as British policeman Nicholas Angel.

ANSWER: **Hot Fuzz**

7. BRCA1 was incorrectly believed to have post-transcriptionally modified a gene responsible for Fanconi anemia, a risk factor for the acute myelogenous form of this class of diseases. The spleen enlarges in one neoplasm of it, a namesake "hairy cell" version, and patients with most forms of it can experience petechiae, or pinprick bleeds. One type of it predominately affects myeloid tissue, or bone marrow, and the acute form of it must be given immediate treatment. For 10 points, name this cancer characterized by the abnormal proliferation of white blood cells.

ANSWER: **leukemia**

8. In one of his plays, Miss Helen faces alienation from her church after turning all her cement statues in the direction of a Muslim holy city. In another play, the title character switches passports with the dead Robert, and this author based another play on the tension between the light-skinned Morris and the dark-skinned Zachariah. This author also wrote about Hally forcing Sam to call him the title honorific. For 10 points name this South African author of *The Road to Mecca*, *Sizwe Banzi is Dead*, *The Blood Knot*, and *Master Harold... and the Boys*.

ANSWER: Athol **Fugard**

9. A small boating party sets off to the titular mountain in his painting *The Red Rigi*, of which this artist painted a *Blue* and a *Dark* version. This man created a utopian dream city setting in his *Regulus*, a theme which he earlier visited in his painting *Dido Building Carthage*. Another work's full title indicates the title individuals "overthrowing the dead and dying", and his work *Snowstorm* supposedly depicts *Hannibal Crossing the Alps*. Depicting a dilapidated warship in *The Fighting Temeraire*, for 10 points, name this English Romantic painter of *Rain*, *Steam*, and *Speed*.

ANSWER: Joseph Mallord William **Turner**

10. During World War I, he served as chief of operations of the 1st Division, which was the first division to go to France, and following the war he served as assistant commandant of instruction at the Infantry School at Fort Benning. Following World War II, he led unsuccessful negotiations to end the Chinese Civil War, and he also served as secretary of defense during the Korean War. Earlier, he was U.S. Army chief of staff in World War II. For 10 points name this man whose eponymous plan provided economic aid for the rebuilding of Europe following World War II.

ANSWER: George Calett **Marshall**



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Second Quarter:
Ten Tossups
with Bonuses

1. Carl Maria von Weber wrote a Grand Duo Concertante for piano and this instrument, along with two concertos. Its ancestor, the chalumeau, names a register in it, and Brahms and Mozart both wrote quintets for it. Messaien's *Quartet for the End of Time* uses it with a violin, cello, and piano. This instrument, which is most often tuned in B flat, performs a trill after a glissando in one of its most noted appearances. Given a solo in the introduction to Gershwin's *Rhapsody in Blue*, for 10 points, name this ebony, single-reed woodwind instrument.

ANSWER: clarinet

BONUS. For 10 points each, name these characters from *Moby Dick*.

[10] This is the monomaniacal captain of the Pequod.

ANSWER: Captain Ahab

[10] This Quaker first mate considers inciting mutiny when he realizes the full madness of Captain Ahab.

ANSWER: Starbuck

2. Many of this leader's decisions were carried out by his disciple Saint-Just. This leader called his government the Republic of Virtue, and instituted a religion called The Cult of the Supreme Being. After he engineered the downfalls of Hébert and Danton, he was overthrown and executed during the Thermidorian Reaction. The leader of the Committee of Public Safety, for 10 points, name this man who guillotined many people during the Reign of Terror in the French Revolution.

ANSWER: Maximilien Robespierre

BONUS. After escaping from a boat, he kills Gessler with a crossbow. For 10 points each:

[10] Name this Swiss hero of a namesake German play, who is made to shoot an apple off his son's head.

ANSWER: *William* Tell [or *Wilhelm* Tell]

[10] This German playwright of *Wallenstein*, *Don Carlos*, and *The Robbers* wrote *William Tell*.

ANSWER: Johann Christoph Friedrich von Schiller

3. In this novel, the servant Justine has the alibi of sleeping in a deserted hut in her defense against the accusation she killed the main character's brother William. The title character travels to the Orkneys and dies on ship stuck in ice. The main character in this novel is nursed from a brain fever by Henry Clerval, and that character narrates the death of his wife Elizabeth at the hands of one of his animated creations. For 10 points, identify this novel in which the title character creates a monster, a work by Mary Shelley.

ANSWER: Frankenstein

BONUS. This man led the assault on Fort Magruder during the Battle of Williamsburg as part of the Peninsular Campaign in 1862. For 10 points each:

[10] Name this leader of the first assault at Antietam, who replaced Ambrose Burnside as commander of the Army of the Potomac.

ANSWER: Joseph **Hooker**

[10] Joseph Hooker is best remembered for leading the Union at this 1863 victory for Robert E. Lee near the Rappahannock River, where Stonewall Jackson was killed.

ANSWER: Battle of **Chancellorsville**

4. A suitor is tasked with making a garden flower in the winter in this author's novel *The Filocolo*, and he wrote a variation on the Troilus and Cressida story in *Il Filostrato*. He included 106 biographies of both good and wicked examples of females in his *On Famous Women*, but he is best known for a work in which seven women and three men flee from plague-ridden Florence for ten days. For 10 points, name this Italian author who included a hundred stories in his *Decameron*.

ANSWER: Giovanni **Boccaccio**

BONUS. Lying between the Aktobe and Kyzylorda provinces, this body of water contains a bioweapons facility on its Vozrozhdeniya or Rebirth Island. For 10 points each:

[10] The port of Moynaq once lied on what shrinking body of water, whose tributaries include the Amu Darya and Syr Darya rivers?

ANSWER: **Aral** Sea [or Lake **Khwarazm**]

[10] The Aral Sea lies between Uzbekistan and this country, which owns the Charyn Canyon and whose largest cities include Almaty and Astana.

ANSWER: Republic of **Kazakhstan**

5. Gneiss can be differentiated from schist by the amount of this mineral present. Along with quartz and foid, two major types of this mineral make up the QAPF diagram for classifying granites. One type of this mineral is the last one on the continuous arm of Bowen's Reaction Series, and varieties of this mineral include labrodorite and anorthosite. For 10 points, name this most abundant class of minerals in the earth's crust, consisting of orthoclase and plagioclase varieties.

ANSWER: **feldspars**

BONUS. It is also known as the Gillespie-Nyholm model. For 10 points each:

[10] Name this model of chemistry, which determines the electron and molecular geometry of compounds based on the number of shared and unshared electrons.

ANSWER: **VSEPR** (sounds like "Vesper") theory [or **v**alence **s**hell **e**lectron **p**air **r**epulsion theory]

[10] If six atoms are bonded to a central atom with no lone pairs and in violation of the octet rule, VSEPR indicates that the molecule is of this shape. Sulfur hexafluoride, SF₆, is a good example.

ANSWER: **octahedral**

6. His death in 1912 marked the beginning of the Taisho period, and although he was born with the name Mutshuhito, he is usually given a name meaning "enlightened rule." Following the Boshin War and the promulgation of the Five Pointed Charter Oath, his accession led to a namesake era in his country that followed the abolition of the Tokugawa Shogunate. For 10 points name this modernizing emperor of Japan who lends his name to a certain "restoration."

ANSWER: **Meiji** Emperor [or **Meiji** the Great; accept **Mutsuhito** before it is read]

BONUS. He is well known for his depictions of Martha's Vineyard, where he spent his summers. For 10 points each:

[10] Name this Missouri-born painter who painted the *Indiana Murals*, controversial for its depiction of the Ku Klux Klan, as well as *Lincoln* and *A Social History of Missouri*.

ANSWER: Thomas Hart **Benton**

[10] Benton was a major mover in this American art movement, which shunned cities in favor of depictions of rural life, and shares its name with a literary trend focused on "local color."

ANSWER: **regionalism**

7. The leadership of Horatio Tuitt was singled out for praise by Gordon Wetherell after this event. The largest loss of life stemming from this event occurred in the town of Cabaret, where it caused seventy-four deaths. Despite that devastation in Haiti, it did not structurally damage Minute Maid Park, though it did cause flooding in Galveston. Preceded by Hanna and Gustav, for 10 points, name this 2008 Category 4 hurricane that made landfall in Texas.

ANSWER: Hurricane **Ike**

BONUS. He killed the brother of his mother Althaea, and Artemis sent a boar to ravage the country when his father, King Oeneus, failed to make a sacrifice. For 10 points each:

[10] Name Greek hero who led the Calydonian board hunt.

ANSWER: **Meleager**

[10] After slaying the Calydonian boar, Meleager awarded the bull's head and hide to this huntress, who lost a famous race with Hippomenes.

ANSWER: **Atalanta**

8. Donald Bersoff noted that this body invokes social science when convenient, while Patrick Driessen lays out twelve "indictments" against social science in this body. This body supported the idea of a "Liberty of Contract" in 1905, though one of its members noted that this merely legalized the opinions of Herbert Spencer. Social scientific data became accepted in this body after the "Brandeis Brief." For 10 points, name this body that requires four of its members to agree to grant a writ of certiorari before it can hear cases like *Brown v. Board of Education*.

ANSWER: the **Supreme Court** of the United States of America

BONUS. This phenomenon typically occurs when light passes from one medium to another, with a different namesake index. For 10 points each:

[10] Identify this phenomenon, commonly employed to create telescopes.

ANSWER: **refraction**

[10] This law states that the ratio of the refraction indices is equal to the ratio of the sines of the angles the light makes with the interface plane.

ANSWER: **Snell's** law [or **Snellius's** Law; or **Descartes'** law; prompt on law of **refraction**]

9. The Gnostic sect of the Cainites believes he was an instrument of the Sophia, or Divine Wisdom, while this man was transformed to look like his greatest friend in the Gospel of Barnabas. According to Acts 1:18, this man “bought a field; there he fell headlong, his body burst open and all his intestines spilled out.” His namesake kiss enabled soldiers of the High Priest Caiaphas to take a certain man into custody, and in exchange, he received thirty pieces of silver. Hanging himself from a tree in remorse, for 10 points, name this apostle who betrayed Jesus.

ANSWER: Judas Iscariot [either or both names]

BONUS. The son of Segimer, a Cherusci chieftain, this man attempted to ally with King Marbod of the Marcomanni by sending the head of an enemy general as tribute. For 10 points each:

[10] Name this husband of Thusnelda who defeated a Roman legion at the 9 CE Battle of Teutoberg Forest.

ANSWER: Arminius [or Herman the German]

[10] Both the Marcomanni and Cherusci tribes were members of the general group of trans-frontier peoples known to the Romans by this name. Tacitus wrote an ethnography of them.

ANSWER: Germans [or Germani]

10. The threshold temperatures of these materials are related to the critical strength of their external magnetic fields by Tuyn's law. The London moment is the magnetic field created when one of these is spinning. When certain materials transition to this type of material, they expel their magnetic field in an effect named after Meissner. In BCS theory, these are formed when electrons condense into Cooper pairs. Coming in Type I and Type II varieties, for 10 points, name this type of material that has zero electrical resistance.

ANSWER: superconductors [or word forms like superconductivity]

BONUS. It is characterized by no barriers to entry, homogenous goods, and a large number of buyers and sellers. For 10 points each:

[10] Identify this type of market which sees both productive and allocative efficiencies.

ANSWER: perfect competition [prompt on partial]

[10] The Herfindal index and four firm concentrations are relevant to these markets described by the Bertrand and Stackelberg models.

ANSWER: oligopoly



HSAPQ

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Round 15

Third Quarter:
Team Rounds

Choices: JOAN
 ARC

JOAN

People named Joan appear in each question of this round.

[10] Joan of Arc was known as the “maid of” this French city, whose “new” version was devastated by Hurricane Katrina in 2005.

ANSWER: **Orleans**

[10] Joan is the wife of the title character in “John Napper Sailing Through the Universe,” a story by John Gardner, who also wrote a novel about this murderous monster from *Beowulf*.

ANSWER: **Grendel**

[10] Joan is the middle name of this only woman on the current Supreme Court, a Clinton appointee who is considered part of the Court’s liberal wing.

ANSWER: Ruth Bader **Ginsburg**

[10] NASA scientist Joan Horvath worked on the Magellan spacecraft, a probe of this planet whose orbit lies between those of Mercury and the Earth.

ANSWER: **Venus**

[10] Joan Webber is an angry woman who dislikes Bernie Litko in *Sexual Perversity in Chicago*, a play by this author of *American Buffalo* and *Glengarry Glen Ross*.

ANSWER: David **Mamet**

[10] A medieval legend says that a certain Joan obtained this rank, but was exposed when she gave birth during a procession. Actual holders have included Julius II and Paul VI.

ANSWER: **Pope**

[10] Opera singer Joan Sutherland was known for performing in *The Daughter of the Regiment*, an opera by this composer of *Anna Bolena* and *The Elixir of Love*.

ANSWER: Gaetano **Donizetti**

[10] Biologist Joan Slonczewki of Kenyon College studies bacteria that can survive extremes of this scale, which measures acidity through the concentration of hydrogen ions.

ANSWER: **pH**

[10] Before becoming a surrealist, Joan Miro flirted with this movement, whose practitioners Tristan Tzara and Hugo Ball used absurdity and “anti-art” to respond to World War I.

ANSWER: **Dada**

[10] Two Joans were powerful queens of this city, near Capri and Vesuvius in Southern Italy on the Tyrrhenian Sea. It was once the capital of the Kingdom of the Two Sicilies.

ANSWER: **Naples** [or **Napoli**]

ARC

This round covers various kinds of “arcs.”

[10] Noah’s Ark is described in this book of the Bible, which also discusses such figures as Adam, Abel, and Abraham.

ANSWER: Book of **Genesis**

[10] This structure on the Champ Elysees commemorates French soldiers.

ANSWER: the **Arc de Triomphe**

[10] A better distance and more powerful arcing shot were possible when this weapon was introduced to English armies shortly before the Hundred Years War.

ANSWER: **longbow**

[10] The ISO code ARC refers to this Semitic language, the common tongue of people in Palestine during the time of the New Testament.

ANSWER: **Aramaic**

[10] Governor Orval Faubus attempted to block the 1957 integration of Central High School in this Arkansas city.

ANSWER: **Little Rock**

[10] The ARC format, like the later ZIP format, uses this process for reducing the size of a file on a computer. Some types are “lossless.”

ANSWER: **compression**

[10] An arc is the name for the neural pathway that governs this sort of biological response to a stimulus.

ANSWER: a **reflex**

[10] This author of *Rosencrantz and Guildenstern are Dead* and *The Real Inspector Hound* created the scientifically minded Bernard Nightingale in his 1993 play *Arcadia*.

ANSWER: Tom **Stoppard** [or Tomas **Straussler**]

[10] This author of *Astrophil and Stella* and *The Lady of the May* also wrote a work called *Arcadia*, but his is a 1598 novel about Prince Pyrocles.

ANSWER: Philip **Sidney**

[10] *The Return of the Dove to the Ark* is a painting by this Pre-Raphaelite, who showed a drowned woman from *Hamlet* in his most noted work, *Ophelia*.

ANSWER: John Everett **Millais**



HSAPQ

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Round 15

Fourth Quarter:
Ten Tossups

1. Anonimo Gaddiano claimed that this artist created a painting of John the Baptist with curly hair pointing next to a cross. This man painted an angel on the left-hand side of a version of *The Baptism of Christ*. In addition to assisting in that work by Verrocchio, he used chalk and charcoal to create *Virgin and Child with St. Anne and St. John the Baptist*. He most likely painted *Lady with an Ermine*, and the Louvre contains his *Madonna of the Rocks*. For 10 points, name this man who sketched *The Vitruvian Man* and painted *The Last Supper* and the *Mona Lisa*.

ANSWER: Leonardo di ser Piero da Vinci [or Leonardo da Vinci]

2. His magnum opus was a “plan of scientific studies necessary for the reorganization of society,” and he claimed that religions start with fetishism, progress to polytheism, and graduate to monotheism before abandoning religion altogether. He argued that humans progressed through a “theological,” “metaphysical,” and “scientific” stage in his “law of three stages.” He claimed that humans should “live for others” and coined the word “altruism,” and called his philosophy “positivism.” For 10 points, name this Frenchman, the father of sociology.

ANSWER: Auguste Comte

3. The giant Thiazzí persuaded him to take Idunna’s apples that preserve youth. While visiting Jotunheim with Thor, he encounters his “Utgard” namesake. He created Angrboda, who gave birth to his half-dead, half-alive daughter and to the wolf who bit off Tyr’s hand and will swallow Odin. He tricked Hoder into killing his brother with a plant that Frigga had forgotten to ask not to harm her son, mistletoe. For 10 points, name this giant and trickster, who fights Heimdall and fathered Hel and Fenrir, in addition to facilitating the death of Balder.

ANSWER: Loki

4. PAME is a syndrome caused by one of these organisms, which is known as *Naegleria fowleri*. In addition to a “brain eating” species, another species can cause keratitis and encephalitis, while the species *Histolytica* causes a namesake dysentery. Its largest species, *Pelomyxa palustris*, inhabits oxygen-poor mud at the bottom of ponds. These members of phylum Rhizopoda contain actin extensions known as pseudopodia. For 10 points, name this protozoan known for its lack of definite shape.

ANSWER: amoebae

5. He created the regent Friedrich of Sicily in an opera based on *Measure For Measure* entitled *The Ban on Love*. In another of his operas, Walthur von Stolzing's music is recognized by Hans Sachs, while in another of his operas the Liebestod occurs between the title characters, *Tristan and Isolde*. This developer of the idea of a leitmotif created the dwarves Mime and Alberich in a series of operas where Brunhilde the Valkyrie loves Siegfried. For 10 points, name this composer of *The Mastersingers of Nuremburg* and a four-opera cycle, *The Ring of the Nibelung*.

ANSWER: Richard Wagner

6. One member of this party oversaw the Erie Canal project, and another member of this party supposedly stated "No! No! Not a sixpence!" during the XYZ Affair. In addition to DeWitt Clinton and Charles Cotesworth Pinckney, another member of this party introduced the resolution to prohibit slavery in the Northwest Territory. That man, Rufus King, was this party's final presidential candidate, and they never again held power after the Revolution of 1800. For 10 points identify this American political party led by Alexander Hamilton and John Adams.

ANSWER: Federalist Party

7. The murder of a slave by the nephews of Thomas Jefferson is the subject of his long poem *Brothers to Dragons*, one of his novels describes Jeremiah Beaumont's trial in the Kentucky Tragedy case. Another of his novels deals with the football hero Jerry Calhoun. In addition to *World Enough and Time* and *At Heaven's Gate*, this author wrote the poem "Blackberry Winter" and a novel which opens with the collapse of a school and is narrated by Jack Burden. For 10 points name this man who described the demagogue Willy Stark in *All the King's Men*.

ANSWER: Robert Penn Warren

8. Marangoni convection results from the gradient of this quantity, and its thermal effect is named after Gibbs and Thomson. The Laplace equation states that the product of pressure and the radius of a film is proportional to this quantity. Molecules like DPPC and SDS are used to reduce this quantity, which is symbolized by a lowercase gamma and represents the ratio of force to the length over which it applies. For 10 points, name this result of cohesive forces, which allows small insects to walk on water.

ANSWER: surface tension

9. This country's first king adopted the name Othon, and subscribed to the nationalistic "Megali Idea." Lord Palmerston ordered a blockade of its capital after Don Pacifico was attacked by anti-Semites in this country. During this country's National Schism, its king Constantine I forced the resignation of Prime Minister Venizelos. Its independence was recognized by the 1832 Treaty of Constantinople, and it was later the site of the Colonels' Revolt. For 10 points, name this country which still seeks the return of the Elgin Marbles to the Parthenon in Athens.

ANSWER: Kingdom or Republic of Greece

10. Lines from his poetry include, "A lovely apparition, sent/ To be a moment's ornament." In addition to "To Sleep" and "A Phantom of Delight," this man wrote a magnum opus subtitled "Growth of a Poet's Mind." He also wrote the Lucy poems and "The World Is Too Much With Us," and with Samuel Taylor Coleridge he launched the English Romantic movement with *Lyrical Ballads*. For 10 points name this English poet who wrote the autobiographical long poem *The Prelude* as well as "Lines Composed a Few Miles Above Tintern Abbey."

ANSWER: William Wordsworth