HSAPQ
High School Academic Pyramid Questions

1. In 1880, this city expanded to swallow the former towns of Flores and Belgrano. Located on the southern shore of Rio de la Plata, it is the second largest metropolitan area in South America. After economic collapse in 2001, it is currently enjoying a revival of sorts in its tourist industry thanks to low-cost pesos. "Evita Vive", translated "Evita Lives", is still commonly seen in graffiti in the streets of this city. For 10 points, what is this city, whose name means "good wind" or "good air", that is the capital of Argentina?
ANSWER: **Buenos Aires**

045-09-1-10101

2. This biome is home to larch and tamarack forests, as well as bogs known as muskeg. This biome contains shallow and difficult-to-farm Spodosol (SPOD-zol) soils, but also supports large populations of trees with conical or needle-shaped leaves, as well as large populations of lichens and mosses. Those trees, such as the white spruce or the douglas fir, are adapted to this region's high moisture levels. For 10 points, name this biome that consists of cold evergreen forests.
ANSWER: **taiga** [or **boreal** forest]

021-09-1-10102

3. As President, this man signed the Keating-Owen Act, which restricted child labor. The Glass-Owen Act passed during this man's time in office, leading to the creation of the Federal Reserve. This man called his agenda the "New Freedom." This man was elected because the Republican vote was split between the incumbent and the Bull Moose Party candidate. This man won that election of 1912 over William Howard Taft and Theodore Roosevelt. For 10 points, name this president who presented the Fourteen Points at the Treaty of Versailles after World War I.
ANSWER: Thomas Woodrow **Wilson**

021-09-1-10103

4. This author wrote about Sabrina, who frees the Lady from a chair she is bound to, in his masque *Comus*. In another poem, this author refers to himself as an "uncouth swain" and tells of the ruin of "the corrupted clergy," evoking the title shepherd in an elegy for his drowned friend Edward King. This poet describes a "talent" "Lodg'd with me useless" in a poem opening "When I consider how my light is spent," and his best known work contains a debate in Pandemonium involving Moloch and Belial, whose sequel is about the title place "reclaimed." For 10 points, name this blind English poet who wrote *Lycidas* and *Paradise Lost*.
ANSWER: John **Milton**

033-09-1-10104

5. This document's solution to the Shandong Problem led to the May Fourth Movement in China. This document established the Free City of Danzig and a Polish Corridor to the Baltic Sea. The reparations demanded by this treaty were revised by the Young and Dawes Plans. Henry Cabot Lodge prevented this treaty's passage in the United States Senate. Vittorio Orlando left during this treaty's negotiations, in which George Clemenceau called for harsh punishment of Germany. For 10 points, name this peace treaty that ended Germany's participation in World War I.
ANSWER: Treaty of **Versailles**

036-09-1-10105

6. One novel from this country is about Laura Trevalyan, a young woman who accompanies an expedition into this country led by the German *Voss.* In addition to Patrick White, an author from this country wrote a historical novel based on the Kelly Gang, while another author from this country wrote about a German enamelware and ammunitions entrepreneur who hires several Jews, saving them from death during the Holocaust. Home to the author of *Schindler's Ark* and Peter Carey, for 10 points, name this country whose author Thomas Keneally wrote about Jimmie Blacksmith, an aborigine.
ANSWER: Commonwealth of **Australia**

7. Felix Ehrenhaft challenged the original results of this experiment. Despite strong skepticism, one performer of this experiment would also later prove Einstein's photoelectric effect. It relied on the terminal velocity of a particle suspended in air, though the results of this experiment were off because of an incorrect value for the viscosity of air. The experiment consisted of the namesake substance suspended in air in the presence of a uniform electric field. For 10 points, name this 1909 experiment, in which Robert Millikan determined the elementary charge of an electron.
ANSWER: Fletcher-Millikan **oil-drop** experiment [or **Millikan** before it is read]

8. A military force traveling to this conflict almost sparked war with Britain in the Dogger Bank Incident. Bloody Sunday occurred in response to this war in one participant nation, while another involved nation saw riots after the partition of Sakhalin. General Nogi helped destroy the Pacific Fleet after a long siege of Port Arthur in this war, while this war ended with the Baltic Fleet destroyed at the Tsushima Strait. For 10 points, name this war ended by the Treaty of Portsmouth that resulted in an Asian nation's victory over Nicholas II.
ANSWER: **Russo-Japanese** War

9. One painting from this country depicts some weary and tied up "burlaks" pulling a ship across a river. This country produced the painter of *Black Square* and *White on White*, the founder of Suprematism. One painter from this nation founded an art movement with Franz Marc, which he titled after his painting *The Blue Rider*. Another artist that lived in this country painted upside down houses and a green man staring at a sheep in his *I and the Village*. For 10 points, name this country where Marc Chagall worked, home to artists such as Ilya Repin and Wassily Kandinsky.
ANSWER: **Russia**n Federation [or **Soviet Union**, or **USSR**]

10. This poet described a "singer" who questions "what to make of a diminished thing" in "The Oven Bird." This poet wrote that "The deed of gift was many deeds of war" in a poem asserting "the land was ours before we were the land's," "The Gift Outright," which he read at the inauguration of John F. Kennedy. In one of his poems, the speaker's neighbor repeats "Good fences make good neighbors." Another poem by this author ends with the repetition of "and miles before I go to sleep," and is called "Stopping By Woods on a Snowy Evening." For 10 points, name this American poet who wrote "The Road Not Taken."
ANSWER: Robert **Frost**

11. This figure gave birth to the protector of gardens and male virility, Priapus. This deity caused Myrrha to fall in love with Myrhha's father Theias (THAY-ee-us). She is sometimes called the daughter of Zeus and Dione, though in other myths, she arose from sea foam after Uranus was castrated. This goddess was picked over Athena and Hera as the fairest by Paris. Her smith god husband once caught her in bed with Ares. For 10 points, name this wife of Hephaestus and Greek goddess of love.
ANSWER: **Aphrodite**

12. Viability at this stage is measured on a zero to ten scale that measures things like grimace and activity. This stage is marked by the closing of the foramen ovale (FORE-oh-men oh-VAH-lay) and the ductus arteriosus. It is characterized by an immature liver and high lactase activity. The Apgar score evaluates individuals at this stage, during which the effects of teratogens (teh-RAT-oh-jenz) and congenital defects first become apparent. For 10 points, name this stage that immediately follows birth.
ANSWER: **infant** [or **newborn**; or **neonatal** stage; or **neonate**; accept word forms for any correct answer; prompt on **baby** or equivalents; do not accept "fetus"]

13. One writer used this language to describe Yasha Mazur in *The Magician of Lublin* and a put-upon baker's assistant in "Gimpel the Fool." This language was also used to write the stories "On Account of a Hat" and "Tevye the Dairyman." Those authors, Isaac Bashevis Singer and Shalom Aleichem (SHA-loam uh-LAY-kem), wrote in this language. Before the book was published in French, this was the original language of Elie Wiesel's (vee-ZELZ) *Night*. For 10 points, identify this Germanic language which was formerly a common language among European Jews.
ANSWER: **Yiddish**

14. Two composers from this country wrote a collaboration on the unfinished opera *Mlada*, and one of those composers is Cesar Cui. One composer from this country wrote the extremely difficult piano work *Islamey*. One composer from this country wrote *Cappricio Espagnole*, and he helped finish the opers *Prince Igor*. *In the Steppes of Central Asia* and the "Polovetsian Dances" are by one native of this country, Alexander Borodin. For 10 points, name this home to Mily Balakirev and Nikolai Rimsky-Korsakov, who are part of the nationalist "Mighty Five."
ANSWER: **Russia**

15. This ruler was once captured and ransomed by Cilician pirates. This man refused to divorce his wife Cornelia when ordered to by Sulla. This man led his empire's first invasion of Britain. One work by this man focuses on his time fighting in Gaul. This ruler won the Battle of Pharsalus after the death of Crassus, which secured this man's victory in a civil war against Pompey. For 10 points, name this ruler who crossed the Rubicon in that war, and who was murdered on the Senate floor of Rome by Cassius and Brutus on the Ides of March.
ANSWER: Gaius **Julius Caesar**

1A. The Guardian Council of this country rejected Mir-Hossaien Mousavi's claims that this nation's 2009 presidential elections were rigged. Name this "Islamic Republic."
ANSWER: Islamic Republic of **Iran** [or Jomhuri-ye Eslami-ye **Iran**]

1B. He painted the *Course of Empire* and *Voyage of Life* series. Name this Hudson River School artist, who was shown alongside William Cullen Bryant in Asher Durand's *Kindred Spirits*.
ANSWER: Thomas **Cole**

2A. It is located on the eastern border of Sequoia National Park and rises above Owens Valley. Name this highest peak in the contiguous United States.
ANSWER: Mount **Whitney**

2B. Name the science fiction author who often uses concepts discussed by her anthropologist father Alfred Kroeber in her works, which include *A Wizard of Earthsea*, *Malafrena*, and *The Left Hand of Darkness*.
ANSWER: Ursula Kroeber **Le Guin**

3A. Identify the politician who resigned her governorship of Alaska in July 2009.
ANSWER: Sarah Louise **Palin**

3B. What Southwestern United States indigenous language was used by "code talkers" during World War II?
ANSWER: **Navajo**

4A. This is a 10-second calculation question. If four fair pennies are each flipped, what is the probability that three will be tails (and one will be heads)?
ANSWER: **1/4** [or **4/16** or **0.25** or equivalents]

4B. This is a 10-second calculation question. A group of 504 blocks are arranged in a rectangular grid with 36 rows. How wide is the grid?
ANSWER: **14** columns

5A. This British poet invented a nine-line stanza ending with an alexandrine. Name this poet, who wrote about Britomart and the Redcrosse Knight in his unfinished epic *The Faerie Queene*.
ANSWER: Edmund **Spenser**

5B. Identify the principle of quantum mechanics which states that the position and velocity of a particle can not be known precisely and simultaneously.
ANSWER: Heisenberg **Uncertainty** Principle

6A. This is a 20-second calculation question. What number, when tripled and then increased by four, gives 58?
ANSWER: **18**

6B. This is a 20-second calculation question. What is 90% of 52?
ANSWER: **46.8**

7A. What long section of a neuron carries nerve impulses away from a cell body and is often covered with a myelin sheath?
ANSWER: **axon**

7B. This concept is plotted against unemployment on the Phillips Curve. Give this term for a rise in the overall price level of an economy.
ANSWER: **inflation**

8A. Give the term for a partially surrounded body of water were fresh water comes mixes with the ocean, an example of which is the Chesapeake Bay.
ANSWER: **estuary**

8B. What Polish chemist discovered polonium and radium in pitchblende, while working with her husband Pierre?
ANSWER: Marie Sklodowska **Curie**

9A. This is a 30-second calculation question. The largest angle in an isosceles triangle is seventy-two degrees. How large are the other angles?
ANSWER: **54** degrees (each)

9B. This is a 30-second calculation question. What is the slope of a line perpendicular to the line y = 3x - 4?
ANSWER: **-1/3**

10A. Characters in this movie include the child-eating Pale Man and Captain Vidal. Name this 2006 Guillermo del Toro film about Ofelia's fantasy world after the Spanish Civil War.
ANSWER: *Pan's Labyrinth* [or *El laberinto del fauno*]

10B. What male Jamaican sprinter set three world records in the 100 meter, 200 meter, and 4-by-100 meter relay races at the 2008 Beijing Olympics?
ANSWER: Usain **Bolt**

1. This poet notes that he'd "rather be/A Pagan suckled in a creed outworn" in his sonnet "The World is Too Much With Us." This poet wrote "Strange fits of passion have I known" and "A Slumber Did my Spirit Seal," which are some of his "Lucy Poems." This poet described an outing with his sister Dorothy, when he saw "a host of golden daffodils," in his poem "I Wandered Lonely as a Cloud." Another of his poems notes that "five years have past" since he saw the title church on the banks of the Wye. For 10 points, name this Romantic poet of "Tintern Abbey," who wrote *Lyrical Ballads* with Coleridge.
ANSWER: William **Wordsworth**

032-09-1-10117

2. This man's idea of a defense system against nuclear missiles, the Strategic Defense Initiative, was dubbed the "Star Wars" plan. This president's press secretary, James Brady, was wounded when this man was shot at by John Hinckley, Jr. This man's administration was scandalized by the Iran-Contra affair. Before becoming president, this man served as Governor of California. This president won easily in his elections against Walter Mondale and Jimmy Carter. For 10 points, name this Republican president of the 1980s, who was succeeded by George H.W. Bush.
ANSWER: Ronald Wilson **Reagan**

023-09-1-10118

3. This philosopher collected short works such as "Schopenhauer as Educator" is his *Untimely Meditations*. He wrote about the concept of eternal recurrence in *The Gay Science*, and contrasted the Apollonian and Dionysian modes in *The Birth of Tragedy*. He wrote about the will to power and the Übermensch in *Thus Spoke Zarathustra*. For 10 points, name this German philosopher, who wrote *Beyond Good and Evil* and *Twilight of the Idols*, and claimed that "God is dead."
ANSWER: Friedrich Wilhelm **Nietzsche**

024-09-1-10119

4. One of his works describes the experience of becoming a "transparent eye-ball" and in a poem set near a "rude bridge that arched the flood" he coined the term "the shot heard round the world." This author of the poem "The Concord Hymn" and essays like "The Oversoul" and "Nature" stated that "a foolish consistency is the hobgoblin of little minds" in an essay that advocates avoiding consistency and conformity. For 10 points, name this American transcendentalist and author of "Self-Reliance."
ANSWER: Ralph Waldo **Emerson**

015-09-1-10120

5. Tacticity describes the relative stereochemistry of these compounds. Their tacticity is controlled in the Chauvin mechanism, which describes how Ziegler-Natta catalysts make these compounds. Radical mechanisms to form these compounds consist of initiation, propagation, and termination steps and can form examples like PVC. For 10 points, name these compounds, such as proteins, carbohydrates, and polyethylene, which are made up of many monomers.
ANSWER: **polymer**s

022-09-1-10121

6. One of this author's poems opens with a description of the "complacencies of the peignoir." This author of "Sunday Morning" describes the title object attracting a "slovenly wilderness" around a Tennessee hill in "Anecdote of the Jar." Another of his poems describes "the single artificer of the world," who "sang beyond the genius of the sea," while other poems by this author of "The Idea of Order at Key West" are addressed to "the thin men of Haddam" and "the roller of big cigars." For 10 points, name this poet of "Thirteen Ways of Looking at a Blackbird" and "The Emperor of Ice Cream."
ANSWER: Wallace **Stevens**

7. Famous black members of this profession included Juan Valiente and Juan Garrido. Another man in this line of work wrote a *True History* of the adventure of which he was a part. In addition to Bernal Díaz, this profession included men who received help from the Tlaxcalan in one attempt to take a city. This job sometimes included trying to find the chief El Dorado or the Fountain of Youth. For 10 points, name this label of many Spaniards who forcibly seized land in the New World, the profession of such men as Hernando de Soto and Ponce de Leon.
ANSWER: **conquistador**s

8. One of this author's writings describes his residency in the Alhambra. In one of this author's stories, only the heart and liver remains of a woman is killed by Old Scratch, who employs Tom Walker as a loan shark. In another story by this author, the protagonist is pursued by the Headless Horseman, leaving Bram Bones to marry Katrina instead of Ichabod Crane. In another of his stories, the protagonist declares himself a subject of George III, being out of touch with the world after falling asleep in the Catskill mountains for 20 years. For 10 points, name this author of "The Legend of Sleepy Hollow" and "Rip Van Winkle."
ANSWER: Washington **Irving**

9. This molecule was first synthesized independently by Tadeusz Reichstein and Norman Haworth. It has chemical formula $C_6H_8O_6$. This molecule is essential in the synthesis of collagen, which explains why those deficient in it often suffer from bleeding gums. Linus Pauling advocated taking extremely large doses of this compound, which is also known as ascorbic acid. For 10 points, name this vitamin, the deficiency of which causes scurvy, which is found in citrus fruits.
ANSWER: vitamin **C** [accept **ascorbic acid** before it is read]

10. One attorney in this Supreme Court case later served as Abraham Lincoln's Postmaster General, Montgomery Blair. As a result of Chief Justice Roger Taney's opinion in this case, the Missouri Compromise was declared unconstitutional. In a 7-2 decision, the Court in this case ruled that the plaintiff was not a citizen and therefore did not have the right to sue for his freedom. For 10 points, name this 1857 Supreme Court case in which a former slave who had lived in free territory sued for his freedom.
ANSWER: *Scott v. Sanford* [or *Sanford v. Scott*; or Dred **Scott** Decision]

11. This operating system sees frequent use on servers via the LAMP setup. This operating system's kernel was originally written as a noncommercial replacement for the MINIX architecture. Richard Stallman believes it is properly prefixed with "G-N-U." For 10 points, name this open-source operating system, primarily attributed to Linus Torvalds, which comes in distributions like Red Hat and Ubuntu.
ANSWER: GNU/**Linux**

12. This man thanked God for "Brother Fire" and "Sister Water" in his religious song "Canticle of the Sun." This man's father, a wealthy cloth merchant, disapproved of his career. This man had a vision in which an icon of a crucified Christ told him to repair Christ's house. This man's namesake order of monks still appoints a Custodian of the Holy Land as a result of his involvement in the Fifth Crusade. His order is also known as the Friars Minor. For 10 points, name this Catholic patron saint of animals, who was from Assisi.
ANSWER: St. **Francis of Assisi** [or Giovanni Francesco **Bernardone**; accept **Francis** after "Assisi" is read; prompt on **Francis** before "Assisi" is read; accept **Francesco** instead of "Francis"]

13. The solution to these objects may be represented as a determinant of a square matrix divided by another determinant. One way to obtain a solution to them involves rewriting a matrix in reduced row echelon form. In addition to Kramer's Rule and Gaussian Elimination, another method of solving them involves substituting a variable for elimination. The point of intersection of their graphs is another representation of their solution. For 10 points, give the term for a group of linear equations using the same variables.
ANSWER: **systems** of linear equations [prompt on **linear equations**]

14. This figure's companion cuts down a tree in the Cedar Forest after killing Humbaba, which occurs before this figure rejects a goddess's advances, causing the goddess to send the Bull of Heaven to ravage the land. This figure walks on the ocean floor to obtain a plant which Utnapishtim told him would grant immortality. Earlier, he commands all of Uruk to mourn a wild-man, his companion Enkidu. This two-thirds god and one-thirds human figure has story that is told in twelve tablets as one of the earliest epics. For 10 points, name this hero of Mesopotamian myth.
ANSWER: **Gilgamesh** [or **Bilgames**]

15. A group co-founded by this man was a military group responsible for the Church Street bombing known as Umkhonto we Sizwe. This author of the autobiography *Long Walk to Freedom* was convicted of sabotage at the Rivonia trial and spent twenty-seven years as prisoner number 46664 at Robben Island. Upon his release, this leader of the African National Congress negotiated with F. W. de Klerk to end his nation's policy of apartheid. For 10 points, name this former president of South Africa.
ANSWER: Nelson Rolihlahla **Mandela**

1. A consumer surplus occurs when the market environment causes an increase in this quantity that is disproportionate to price. Indifference curves show a series of points at which various combinations of goods lead to the same value in this quantity. In the 1890's, classical economics began to focus on the amount of this conferred by receiving one additional unit of a good, or its "marginal" variety. For 10 points, name this economic concept, whose "public" kind includes such examples as the production of water and electricity.
ANSWER: **utility** [accept marginal **utility** before it is read; accept **consumer surplus** before it is read]

019-09-1-10132

2. *The Betrothed* was written in this language, which was used by the Nobel Laureate who wrote *The Accidental Death of an Anarchist*. The Manager attempts to direct a play with six family members in a play in this language, which was used to write a novel about a murder investigation carried out by Adso of Melk and William of Baskerville. *Six Characters in Search of an Author* and *The Name of the Rose* were written by Luigi Pirandello and Umberto Eco, writers in this language. For 10 points, name this language, whose earliest literature includes the works of Dante.
ANSWER: **Italy**

022-09-1-10133

3. the "mysterious letters" alif and lam are found in part of this work. This work claims that at the end of the world, believers will be forced into Jahannam (JAH-hah-nahm) before they are allowed to enter paradise. It is believed to be housed in the Guarded Tablet. It discusses the birth of Jesus in the section titled "Mary." "The Cow" is another of the 114 suras (SIR-uhs) of this work. It is complemented by the hadiths in Sharia (SHAR-ee-uh) law. For 10 points, name this text, revealed by Gabriel to Mohammed, that is the holy book of Islam.
ANSWER: the **Qur'an** [or **Koran**]

027-09-1-10134

4. Analysis of individuals with I-cell disease led to the discovery that proteins headed to this organelle are tagged with mannose-6-phosphate. Enveloping an organelle with a double-membraned vesicle is the first step in autophagy, which occurs in this organelle. Hydrogen pumps on its surface are responsible for maintaining its pH of about 5. For 10 points, name this organelle that breaks down unneeded molecules.
ANSWER: **lysosome**s

003-09-1-10135

5. The apparatus used to make this occur in the lab uses a "cold finger." Naphthalene and iodine are two substances that are easily purified by this technique. It is integral to lyophilization (LIE-oh-fill-ih-ZAY-shun), and it can be used to infuse paper with dye in a namesake type of printing. In Antarctica, it can be induced by katabatic winds. For most compounds, it usually occurs at low pressure. It is a transition below and to the left of the triple point on a phase diagram. For 10 points, name this phase transition, commonly seen in dry ice, in which a solid directly becomes a gas.
ANSWER: **sublimation**

001-09-1-10136