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| High School Academic Pyramid Questions | **VHSL Scholastic Bowl**  **Regional Tournament 2015**  **Round 1**  **First Period, Fifteen Tossups** |

*Note to all quizmasters: In pronunciation guides for this tournament, the cluster “ey” represents the vowel sound in the first syllable of “neighbor” or the words “stay” or “pray.”*

1. Religious factions chiefly based in this city, called the Utraquists (OOT-ruh-kwists) and the Taborites (TAH-bore-ites), clashed at the Battle of Lipany (LIP-uh-nee). The Maharal (MAH-hah-rall), a resident of this city’s Jewish quarter, legendarily created a clay golem (GOH-lem). Jan Hus (YAN HOOS), a resident of this city, was burned at the stake at the Council of Constance. In this city, three Catholic ambassadors were saved by a dung heap after being attacked by Bohemian nobles. For 10 points, name this city where a “defenestration” occurred.  
ANSWER: **Prague** [or **Praha**]

2. These organisms have a mutation that prevents them from detecting sweetness. These crepuscular (cruh-PUSK-yuh-lur) creatures are the main vector for toxoplasmosis (TOCK-soh-plaz-MOH-sis) in humans. A namesake “fever” is transmitted through their scratches. These animals conserve angular momentum in a namesake “righting reflex”. Due to X-inactivation, normally only the females of these domesticated mammals can express calico coloring. For 10 points, name these carnivores in the *Felis* (FEE-lis) genus that include the Siamese breed.  
ANSWER: domestic **cats** [or house **cats**; or obvious equivalents]

3. A character on this television show appears in the much-maligned film *The Rural Juror*. This show aired live episodes in 2010 and 2012. A character on this show begins an affair with his mother-in-law after his wife is kidnapped in North Korea. That character on this show hires Tracy Jordan to join the cast of *TGS* after being named Vice President of East Coast Television, and is played by Alec Baldwin. For 10 points, name this television series about a fictional sketch comedy show, starring Tina Fey as the show’s head writer, Liz Lemon.  
ANSWER: ***30 Rock***

4. A player of this instrument composed a big band medley derived from *West Side Story.* Kenny Clarke earned the nickname “klook” for his unique style of playing this instrument. Buddy Rich often fought “battles” over this instrument with Gene Krupa. The founder of the ensemble M’Boom (muh-BOOM), Max Roach, was a virtuoso of this instrument. Players of this instrument are familiar with the “bass” and “snare” varieties, and periodically hit cymbals. For 10 points, name this percussion instrument played with sticks.  
ANSWER: **drum**s

5. This novel is reimagined from the perspective of a secondary character in Jean Rhys’s (“gene” REES’s) novel *Wide Sargasso Sea.* The protagonist of this novel refuses an offer of marriage from the missionary St. John (SIN-juhn) Rivers. After a secret is revealed about the “madwoman in the attic” Bertha Mason, this novel’s title woman ultimately marries her employer, Mr. Rochester. For 10 points, name this novel by Charlotte Bronte.  
ANSWER: ***Jane Eyre***

6. Under UV light, compounds containing only members of this group will dissociate to form radicals. An element in this group has the highest electron affinity of any element. Most common Lewis acids are metals bonded to members of this group. The only non-mercury element which is liquid at room temperature is in this group. This group’s oxidation states are almost always negative one, since, if they accept one electron, they gain a full octet. For 10 points, name these elements located in Group 17, just left of the noble gases on the Periodic Table.  
ANSWER: **halogen**s [or Group **7**; or Group **17** until it is read]

7. Under this government, a mental disorder called “zero stroke” became widespread. A minister of this government, Walter Rathenau (RAH-tuh-now), was assassinated for negotiating the Treaty of Rapallo (ruh-PAH-low). Supposedly, a wheelbarrow of money was needed to buy a loaf of bread during the hyperinflation faced by this government. The last president of this government signed the Enabling Act after the Reichstag fire. For 10 points, name this government, last led by Paul von Hindenburg, that ruled Germany after World War I.  
ANSWER: **Weimar** Republic [prompt on **Germany**]

8. This city’s Elephanta Island is home to a series of caves that contain many rock-cut sculptures of Shiva. This city was originally built on seven islands, which were eventually transformed into Salsette (sahl-SET) Island through land reclamation. This city, the capital of Maharashtra (mah-hah-RAHSH-truh) state, was the site of several 2008 terrorist attacks, which targeted hotels such as the Taj Mahal Palace. For 10 points, name this home of the Bollywood movie industry and most populous city of India.  
ANSWER: **Mumbai** [or **Bombay**]

9. Direct current is unable to pass through these devices when they are in steady-state. The strength of one type of these devices is proportional to area and inversely proportional to distance, and can be increased by using a dielectric (die-electric). The parameter that describes the strength of these things is calculated as charge over voltage. For 10 points, identify this circuit element that stores electrical energy, which often takes the form of two parallel plates.  
ANSWER: **capacitor**s

10. This politician wrote a book, *Six Crises*, which described his debate in a mock kitchen with a Soviet leader. He angrily said that the press would not have him to “kick around” anymore after he lost an election for governor of California. This man defended his use of a slush fund in his 1952 “Checkers speech” while running for Vice-President on the Dwight Eisenhower ticket. For 10 points, name this President who resigned after the Watergate scandal.  
ANSWER: Richard Milhous **Nixon**

11. This author wrote a play in which a purple cloth is laid out before a man to trick him into entering a hall. In the last play of a series by this man, Athena leads the Furies into the earth to become the “kindly ones.” He wrote about the murder of the king of Argos by Aegisthus (eye-JIS-thiss) and Clytemnestra (KLAI-tem-NESS-truh) in the first play of that series. For 10 points, name this first major ancient Greek tragedian, whose plays *The Eumenides* (yoo-MEN-uh-deez)*,* *The Libation Bearers,* and *Agamemnon* make up his *Oresteia* (or-ess-TIE-uh) trilogy.  
ANSWER: **Aeschylus**

12. While at a McDonald’s in this city, Wesley Lowery of the *Washington Post* was shoved into a soda fountain machine. State Senator Jamilah (juh-MILL-uh) Nasheed was arrested for blocking traffic in this city, which was placed under the control of Captain Ron Johnson by Governor Jay Nixon after a QuikTrip convenience store was burned. For 10 points, what Missouri city was the site of civil unrest after police officer Darren Wilson shot African-American youth Michael Brown?  
ANSWER: **Ferguson** [prompt on **St. Louis**]

13. When this deity and Zeus visited a small town, Baucis (BAO-kiss) and Philemon (FIE-luh-mon) were the only ones that welcomed them into their home. This deity rescued Ares (AIR-eez) from a bronze jar and gave Odysseus an herb with which to resist Circe’s (SUR-see’s) magic. This deity used cow intestines and a tortoise shell to invent the lyre, which he gave to Apollo after stealing some of his cattle. This deity wields the caduceus (cuh-DOO-siss) and wears winged sandals. For 10 points, name this Greek messenger god.  
ANSWER: **Hermes**

14. This poet wrote that it would be better to “give her to the god of storms, the lightning and the gale,” in a poem about a ship about to be decommissioned. In another poem by this author, the speaker hears “through the deep caves of thought” a voice singing, “Build thee more stately mansions, O my soul,” while holding the title creature’s shell to his ear. For 10 points, name this New England poet of “Old Ironsides” and “The Chambered Nautilus.”  
ANSWER: Oliver Wendell **Holmes**, Sr. [“Sr.” is not required, but “Jr.” is incorrect if given]

15. An immortality-granting plant retrieved by Gilgamesh is stolen by one of these animals. A wound from one of these animals forces Ra to reveal his secret name to Isis. In Norse mythology, the world is encircled by one of these creatures named Jormungandr (YOR-mun-gon-durr). Two of these animals are wrapped around the caduceus. One of these animals tempts Eve into eating the forbidden fruit. For 10 points, name these animals which make up the hair of Medusa.  
ANSWER: **snake**s [or **serpent**s]

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| High School Academic Pyramid Questions | **VHSL Scholastic Bowl**  **Regional Tournament 2014**  **Round 1**  **Directed Round** |

1A. What adjective refers to a spheroid elongated along the polar axis and is contrasted with the word “oblate”?  
ANSWER: **prolate**

1B. What verb tense is used in the French sentence “ils seront tristes” (eel sair-ON treest)?  
ANSWER: **simple future** [or **futur simple** (samp-luh); prompt on **future**]

2A. What Polish-born British author wrote *Lord Jim*?  
ANSWER: Joseph **Conrad**

2B. In what Ruggero Leoncavallo (roo-JAIR-oh lay-on-cuh-VAH-loh) opera does the title clown sing “Vesti la giubba” (VES-tee luh JOO-buh) as he is forced to put on a show and pretend to laugh, even though he has just discovered his wife’s infidelity?  
ANSWER: *I* ***Pagliacci***

3A. This is a 20-second calculation question. A right rectangular prism has a volume of 200 cubic centimeters. What is the volume of a right rectangular prism with half the width, half the height, and twelve times the length of the original prism?  
ANSWER: **600** cubic centimeters

3B. This is a 20-second calculation question. Ron and Don start at the same point. Ron walks northeast at 3 miles per hour. Don walks northwest at 4 miles per hour. After 2 hours, how far apart are Ron and Don?  
ANSWER: **10** miles

4A. What engineer and comedian hosted an educational show in the 90s and was known as “The Science Guy”?  
ANSWER: Bill **Nye**

4B. What Russian chemist invented the periodic table and used it to predict the existence of ekamanganese (EK-uh-main-guh-neez) and ekasilicon (EK-uh-sil-uh-con)?  
ANSWER: Dmitri **Mendeleev**

5A. What Islamic terrorist group whose name roughly translates to “Western education is forbidden” is suspected in a December 2014 raid that killed at least 150 in Damaturu (dah-mah-TOUR-oo), Nigeria?  
ANSWER: **Boko Haram** [or **Jama’atu Ahlis Sunna Lidda’Awati Wal-Jihad**; or **People Committed to the Prophet’s Teachings for Propagation and Jihad**]

5B. What Southern European country’s Years of Lead (LED) culminated in the kidnapping and murder of Christian Democratic Prime Minister Aldo Moro by the Red Brigades?  
ANSWER: **Italy** [or **Italian Republic**; or **Repubblica italiana**]

6A. What animals live in the Virunga (veer-OON-guh) National Park in the Democratic Republic of the Congo and were researched by Dian Fossey, who published a book about them “in the mist?”  
ANSWER: **gorilla**s [or mountain **gorilla**s; or ***Gorilla****s in the Mist*]

6B. What quantity in physics is defined as power per unit area, and can be measured in candelas (can-DEL-uz) for light waves?  
ANSWER: luminous **intensity**

7A. The Dominican monk Savonarola (SAH-vuh-nuh-ROLL-uh) organized what event, which targeted mirrors, musical instruments, playing cards, and other objects considered sinful?  
ANSWER: **Bonfire of the Vanities** [or **Falo delle Vanita**]

7B. What type of weapon was used by Scottish schiltrons (SHEEL-tronz) at Bannockburn (BAH-nuk-burn) and by Ancient Greek phalanx (FAY-lanx) formations, who called them “sarissas” (suh-RISS-uz)?  
ANSWER: **spear**s [or **pike**s]

8A. This is a 30-second calculation question. Suppose that the Sharks and the Dolphins are playing a best three-out-of-five series in which the Sharks have a two-thirds probability of winning any given game. What is the probability that the series goes to a fifth game?  
ANSWER: **8/27** [or **24/81**]

8B. This is a 30-second calculation question. Find the unique value of x between 0 and pi radians such that cosine of one-half x equals sine of x.  
ANSWER: **pi/3** radians

9A. What kind of weapon includes mythological examples such as Tyrfing (TEER-fing), owned by Svafrlami (suh-VAHF-ur-LAH-mee), and Durandal (DUR-un-doll), wielded by the hero of the *Song of Roland*?  
ANSWER: **sword**

9B. What contemporary American novelist wrote *No Country for Old Men,* *All the Pretty Horses,* and *Blood Meridian*?  
ANSWER: Cormac **McCarthy**

10A. The edge length of a cube is multiplied by what constant to find the length of a cube’s space diagonal?  
ANSWER: square **root** of **3**

10B. What friend of Goethe (GEER-tuh) wrote such plays as *The Robbers* and *William Tell*?  
ANSWER: Friedrich **Schiller** [Johann Christoph Friedrich von **Schiller**]

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| High School Academic Pyramid Questions | **VHSL Scholastic Bowl**  **Regional Tournament 2014**  **Round 1**  **Third Period, Fifteen Tossups** |

1. One of these events led to a trial conducted by Jean Noel Destrehan and occurred in the German Coast region. A leader of one of these events described his visions of blood dripping from corn to the lawyer Thomas Gray Ruffin. Denmark Vesey planned one of these events, and a man known as “Cato” instigated one of them named for the Stono (STONE-oh) River. Participants in one of these events murdered roughly sixty people in Southampton County. For 10 points, name this type of insurrection, one of which was led by Nat Turner.  
ANSWER: **slave revolt**s [or obvious equivalents]

2. This poet wrote a four-act drama in which Demogorgon (deh-moh-GOR-gon) deposes Zeus, and the title character is united with his love Asia. This poet of *Prometheus Unbound* addressed a “preserver and destroyer” in a poem asking that natural force to “make me thy lyre.” At the end of that poem, this poet asked, “If Winter comes, can Spring be far behind?” For 10 points, name this Romantic poet of “To a Skylark” and “Ode to the West Wind.”  
ANSWER: Percy Bysshe **Shelley**

3. Deborah Gewertz claimed that this anthropologist’s research on matriarchy in the Chambri (CHOM-bree) region was not reproducible. People interviewed by this woman lied to her about using chicken blood to hide their virginity, according to a critique by Derek Freeman claiming that this writer was “hoaxed.” She wrote about children being ignored until they became teenagers in a book with a foreword by Franz Boas which studies young people on Ta’u (tuh-OW). For 10 points, name this anthropologist who wrote *Coming of Age in Samoa*.  
ANSWER: Margaret **Mead**

4. The protagonist of this novel is saved when he learns of an available “firewagon” to take his family south. This novel begins a trilogy that also includes *Sons* and *A House Divided*. In this novel, the protagonist pulls a rickshaw for a living while his wife O-Lan begs along with his children. This novel begins on the wedding day of the Chinese farmer Wang Lung. For 10 points, name this novel by Pearl S. Buck.  
ANSWER: *The* ***Good Earth***

5. Dual concrete spiral ramps surround a modernist Penguin Pool in this city’s zoo. A skyscraper nicknamed “The Gherkin” and a helmet-shaped city hall are among the Norman Foster-designed structures located in this city. A plate-glass and cast-iron building known as the Crystal Palace was built here for the 1851 Great Exhibition. Most of this city can be seen from the top of a tall Ferris wheel nicknamed the Eye. After a 1666 fire leveled much of this city, Christopher Wren rebuilt St. Paul’s Cathedral. For 10 points, name this home to Buckingham Palace and Big Ben.  
ANSWER: **London**, England

6. This condition may be marked by “stumbles, mumbles, fumbles, and grumbles.” Afterdrop may occur during treatment of this issue, due to stagnant blood returning to the core. Later phases of it can include terminal burrowing and paradoxical undressing. Because it lessens oxygen stress on the brain, this condition may improve survival in near-drownings. Severe cases of this condition are marked by mental confusion, puffy blue skin, and loss of shivering. For 10 points, name this condition in which core body temperature drops below 95 degrees Fahrenheit.  
ANSWER: **hypothermia** [do not accept “hyperthermia”]

7. This artist created a pioneering outdoor portrait of an umbrella-carrying dog breeder crossing a busy thoroughfare with his daughters. An exhausted orange-clad girl sits on a disused double bass in another painting by this artist. He depicted his brother reading a newspaper as his bankrupted uncle lays out white bales for inspection in his painting *A Cotton Office in New Orleans.* For 10 points, name this Impressionist painter of *The Dance Lesson* and many other depictions of ballerinas.  
ANSWER: Edgar **Degas** [Hilaire Germain Edgar **De Gas**]

8. The geometric mean of two numbers is this function taken on their product. An iterative process for approximating this function by dividing and averaging was discovered by the Babylonians and is sometimes called Heron’s Formula. For a thirty-sixty-ninety triangle, the length of the longer leg will be the length of the shorter leg times this function’s value at three. For some number “x,” this function can be written as “x to the power of one-half.” For 10 points, name this function that is the inverse of squaring a number.  
ANSWER: square **root** [do not prompt on “square”]

9. This man wrote a detailed refutation of Robert Filmer’s book *Patriarcha*. He penned the *Fundamental Constitutions of Carolina* and claimed that the ownership of property is justified by the work and labor extended to make such property beneficial to society. This philosopher wrote a 1689 text proclaiming the mind at birth was a blank slate, or “tabula rasa” (TAH-byoo-luh RAH-suh). For 10 points, name this English philosopher who wrote *Two Treatises of Government* and *An Essay Concerning Human Understanding*.  
ANSWER: John **Locke**

10. A lake referred to with this surname was created when the Grand Coulee (COO-lee) Dam impounded a river in Washington state in 1941. An island with this name is home to The Octagon and was formerly called Welfare Island. The “Four Freedoms Park” is on that narrow island of this family name in the East River of New York. A Chicago university established in 1945 was named after Eleanor and a man with this last name who articulated the New Deal. For 10 points, give this surname of a President who served from 1933 to 1945.  
ANSWER: **Roosevelt**

11. The question of how densely these objects can be packed is the subject of Kepler’s conjecture. It is not a hyperbola, but a common non-Euclidean geometry is done on the surface of these shapes. The coordinates named for this object use three variables: theta, phi, and rho. The volume enclosed by one of these objects is called a ball, and they have surface area equal to 4 pi times radius-squared. For 10 points, what is this three-dimensional analogue of the circle?  
ANSWER: **sphere**s [prompt on **ball** until it is read]

12. In this song, the singer declares that he put on his “best suit” and then “raced like a jet all the way to you.” In the music video for this song, the lead singer tries to gain the blessing of his girlfriend’s father but is rebuffed while singing “can I have your daughter for the rest of my life? Say yes, say yes, cause I need to know.” The other members of the band encourage the singer of this song to “marry that girl, marry her anyway.” For 10 points, name this song by the band Magic, whose chorus asks “why you gotta be” the title adjective.  
ANSWER: “**Rude**”

13. Fermat’s Little Theorem says that “negative a plus a to the power of n” is a multiple of n if n is one of these numbers. If Goldbach’s conjecture is true, then every even number greater than 2 is a sum of two of these numbers. Mersenne (mur-SEN) numbers are a subtype of these numbers that take the form “2 to the n, minus 1.” These numbers may be simply but inefficiently found using the Sieve of Eratosthenes (err-uh-TOSS-thuh-neez). For 10 points, name these numbers which are not composite, and whose only factors are one and themselves.  
ANSWER: **prime** numbers

14. The growth of this policy was opposed by the Fagan Commission but was supported by the subsequent Sauer commission. The Sharpeville massacre inspired opponents of this policy to form the Spear of the Nation. The pass laws were part of this policy, which was the subject of a protest during which Steve Biko (BEE-koh) was killed, the Soweto (sow-EY-toh) Uprising. F.W. de Klerk helped end this policy by releasing a political prisoner from Robben Island in 1990. For 10 points, name this system opposed by Nelson Mandela in South Africa.  
ANSWER: **apartheid** [prompt on **South African segregation** or other descriptive answers]

15. After this battle, the Witenagemot (WIT-ehn-AH-gey-mott) proclaimed Edgar the Aetheling (ETH-uh-ling) king. Waltham Abbey claims to hold the body of this battle’s loser. Alan the Red and Eustace (YOOS-tuss) II of Boulogne (boo-LOAN) commanded two units of the winning side of this battle. Prior to this battle, the losers defeated an invading Norwegian force led by Harald Hardrada (HARD-ruh-duh) at Stamford Bridge. For 10 points, name this battle where Anglo-Saxon forces under Harold Godwinson were defeated by William the Conqueror.  
ANSWER: Battle of **Hastings**

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| High School Academic Pyramid Questions | **VHSL Scholastic Bowl**  **Regional Tournament 2014**  **Round 1**  **Tiebreaker/replacement questions** |

1. A point in this location, originally called HMRG for the group that discovered it, was renamed Sirena (sai-RAY-nuh). A vessel designed for exploring a part of this location was used in 2012 by filmmaker James Cameron. In 1960, Jacques Piccard and Don Walsh used the *Trieste* (TRIS-tay) to reach a part of this location. For 10 points, name this location in the western Pacific Ocean that is the trench containing the lowest point on Earth, the Challenger Deep.  
ANSWER: **Mariana**s Trench [or **Challenger Deep** until it is read]

2. Akasaki (AH-kuh-SAH-kee), Amano, and Nakamura won the 2014 Nobel Prize in Physics for work with diodes that emit this color of light. Types of lightning in the upper atmosphere include “jets” of these color which are contrasted with “red sprites.” Cerenkov (CHAIR-ank-off) radiation appears as this color, which is also emitted by stars in the O and B spectral classes. Objects moving toward an observer will experience this color’s “shift.” For 10 points, Rayleigh scattering is responsible for the daytime sky appearing as what color?  
ANSWER: **blue** [or light-emitting **diode**s or **LED**s until “diodes” is read]

3. A Soviet Republic was declared in this country’s town of Madiun (MAD-ee-un) in 1948, a year after it was invaded in Operation Product. Six generals here were assassinated by the 30th of September Movement. The leader of this country’s New Order regime overthrew the promoter of Pancasila (PAHN-cuh-SILL-uh) and Guided Democracy. This country’s capital was called Batavia (buh-TAY-vee-uh) when this country was the Dutch East Indies. For 10 points, name this country where Sukarno (soo-KARN-oh) and Suharto (soo-HART-oh) ruled from Jakarta.  
ANSWER: **Indonesia** [Republic of **Indonesia**]

4. A son of this deity wins a race when he proclaims this god and his wife to be the entire world, and then runs laps around them three times. This god consumes the poison that is produced from the churning of the ocean. This deity angrily beheads a young boy blocking him from entering his own house, but later gives him the head of an elephant as a replacement. This deity is the wife of Parvati (PAR-vuh-tee) and the father of Ganesha (guh-NAISH-uh). For 10 points, name this Hindu god of destruction, who forms a trinity with Brahma and Vishnu.  
ANSWER: **Shiva**

5. In this play, two characters are successfully married after both of them tell their parents they are not ready. In this play, the alcoholic choirmaster Simon Stimson commits suicide, and the Stage Manager introduces and comments on the action. This play follows Emily Webb and George Gibbs, who are both residents of the title location, Grover’s Corners. For 10 points, name this play by Thornton Wilder.  
ANSWER: ***Our Town***

What nineteenth-century, color-blind scientist names a law stating that the sum of partial pressures is equal to the total pressure of a mixture of gases?  
ANSWER: John **Dalton**

This is a calculation question. What is the range of the function y equals 3 plus cosine of quantity 6 pi t plus pi over 4?  
ANSWER: **2 to 4**, inclusive [or y is **between 2 and 4**, inclusive]