# THE LONG ISLAND QUIZ BOWL ALLIANCE

## Arkansas Standard Sample, Middle School Level

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## Quarter One

1. This man wrote for the socialist magazine *Avanti!* and was the leader of the Republic of Salò puppet state before being executed by partisans in 1945. The March on Rome led to the rise of what Italian Fascist ruler?
ANSWER: Benito **Mussolini** [or Benito Amilcare Andrea **Mussolini**] <Social Studies>

2. The protagonist of this series is nicknamed "The Girl on Fire" because of a costume designed by Cinna ("sinna"). Panem is the setting of what series whose protagonist is Katniss Everdeen?
ANSWER: *The **Hunger Games*** <Language Arts>

3. Pencil and paper ready. What is the hypotenuse of a right triangle with legs of length 8 and 15? It may help to use the Pythagorean theorem.
ANSWER: **17** <Computational Math>

4. This element was first isolated using electrolysis by Henri Moissan ("on-REE mwah-SAHN"). This most electronegative element on the periodic table is an extremely reactive yellow gas. What element that has one less proton than neon has the symbol F?
ANSWER: **fluorine** [accept **F** before mentioned] <Science>

5. This scientist names the dot notation for derivatives and co-names, with Joseph Raphson, an iterative method for finding the roots of a differentiable function. Name this British scientist who co-discovered calculus with Leibniz.
ANSWER: Isaac **Newton** <Math>

6. This composer wrote an 1847 piece that was inspired by a little dog chasing its own tail. This man also composed etudes nicknamed "Farewell" and "Winter Wind." Name this prolific Polish composer and piano virtuoso of pieces such as *Fantaisie-Impromptu* and *Minute Waltz*.
ANSWER: Frédéric **Chopin** <Fine Arts>

7. This scientist catalogued adaptive radiation by studying the beaks of finches in the Galapagos. Name this scientist who wrote about evolutionary biology in the work *On the Origin of Species*.
ANSWER: Charles **Darwin** <Science>

8. This quantity, which can be denoted as x with an overbar, has a 1 over n exponent in its "geometric" type. This quantity can equal a sum of numbers, divided by how many there are. What term is often grouped with median and mode?

ANSWER: **mean** [accept **average**; accept geometric **mean** or arithmetic **mean**] <Math>

9. This punctuation mark, also called the "solidus," can be used to write a horizontal fraction bar on one line of text. What non-dash marks can be used to separate months and days in dates, such as in 9/11?
ANSWER: (forward) **slash** [reject "backslash"] <Language Arts>

10. This man was hanged after surrendering to Robert E. Lee after leading a raid on a West Virginia armory. What bloody abolitionist led a failed raid on Harpers Ferry and shares his last name with a color.
ANSWER: John **Brown** <Social Studies>

11. Shaggy light brown hair often covers the eyes of these animals' Highland breed. Other breeds of these animals include the Swiss Simmental, the British Hereford, and the Holstein Frisian. What animals don't actually have to be brown to make chocolate milk?
ANSWER: **cow**s [or **cattle**; accept **bull**s or **steer**; prompt on bovines] <Science>

12. One of these events that inspired the writer Robert Service began with a discovery by "Skookum" Jim in the Klondike region. Another of these events that was centered on Sutter's Mill led Levi Strauss to make a fortune selling durable jeans. "Forty-niners" traveled to an event of what type in California in search of a precious metal?
ANSWER: **gold rush**es [or **gold fever**s; accept California **gold rush** or 1848 **gold rush** or 1849 **gold rush**; accept Klondike **gold rush** or Yukon **gold rush** or Alaska **gold rush**] <Social Studies>

13. The Hayden Survey of 1871 described this park's Grand Prismatic Spring. In 1995, gray wolves were re-introduced into this national park, which sits on a large supervolcano. What oldest national park is home to a geyser named Old Faithful?
ANSWER: **Yellowstone** National Park <Social Studies>

14. This novel's narrator is saved by the *Rachel* after clinging onto the unused coffin of Queequeg ("KWEE-kwayg") for a whole day. What novel set aboard the *Pequod* is about hunting the title white whale and is by Herman Melville?
ANSWER: ***Moby-Dick*** <Literature>

15. This man eulogized Abraham Lincoln as "fallen cold and dead" in the poem "O Captain! My Captain!" What American poet included "Song of Myself" in his collection *Leaves of Grass*?
ANSWER: Walt **Whitman** [or Walter **Whitman** Jr.] <Language Arts>

16. In 2022, a college football team in this state replaced its Louisiana-bound coach, Brian Kelly, with Marcus Freeman. The universities Purdue and Notre Dame are located in what Midwestern state that is home to many "Hoosiers"?
ANSWER: **Indiana** <Current Events/Pop Culture>

17. This term can refer to both the measure of complexity in a fractal, as well as the size of a matrix. What term, when referring to the number of coordinates needed to define a point, is two for a circle and three for a sphere?
ANSWER: **dimension**s [or fractal **dimension**] <Math>

18. Pencil and paper ready. In terms of pi, what is the volume of a cylinder with a radius of 5 inches and a height of 4 inches? It may help to remember the equation volume equals pi times radius-squared times height.
ANSWER: **100 pi** cubic inches <Computational Math>

19. Due to phonetic similarity to the word for "getting rich," *fā*, this number is thought to be lucky in China. The Buddhist journey from rebirth to nirvana is summarized as a "path" with this many steps. Name this number that looks like a rotated infinity symbol.
ANSWER: **8** [accept **Eight** Immortals] <Mythology/Religion/Philosophy>

20. In 1851, these animals became the first non-human ones to be on an official postage stamp. These animals are the source of the vanilla-raspberry flavoring agent castoreum ("kah-STOR-ee-um"). These animals warn others by slapping their large flat tails, and instinctually react to running water. What second-largest rodents are "ecosystem engineers" who build dams on rivers?
ANSWER: **beaver**s [accept North American **beaver** and Eurasian **beaver**] <Science>

# Quarter Two

21. The Dodd-Frank Act increased insurance coverage limits for these institutions to 250,000 dollars. That act was meant to help prevent “runs” on what financial institutions, at which consumers can open checking and savings accounts?
ANSWER: **bank**s [accept **bank** runs] <Social Studies>

22. In a 2024 final in this country, County Armagh ("ar-MAH") defeated Galway (“GAWL-way”) in its namesake variant of soccer, which was last won by Cork in 2010. What European country is separated from Britain by a namesake sea, and has a “Northern” neighbor?
ANSWER: Republic of **Ireland** [or **Éire**; reject “Northern Ireland”] <Social Studies>

(Note to reader: make a tongue click sound where it says click)
23. The language !Kung (“click kung”) includes this punctuation mark in its name as a click symbol. F. Scott Fitzgerald, among others, cautioned against excessive use of what punctuation mark that is used as an interjection or to show emphasis?
ANSWER: **exclamation** mark [or **exclamation** point] <Language Arts>

24. This behavior’s “brood” form is exemplified by animals accidentally raising the young of other species. The “ecto” form of this behavior is demonstrated by ticks feeding on a dog’s blood in order to survive. Name this relationship in which one animal benefits at the expense of another.
ANSWER: **parasitism** [accept brood **parasitism** or ecto**parasitism**; accept **parasite**s] <Science>

25. After presenting a signet ring to a kidnapped woman, one of these animals reveals a tattoo of Lord Rama on his heart and burns the kingdom of Lanka. The figures Hanuman (“hah-noo-mahn”) and Sun Wukong and are examples of what primates?
ANSWER: **monkey**s [accept the **Monkey** King] <Mythology/Religion/Philosophy>

26. This artist’s painting of a girl reaching for a red balloon shredded itself during an auction at Sotheby’s in 2018. The work *Love Is in the Bin* was the idea of what British graffiti artist whose identity is unknown?
ANSWER: **Banksy** <Fine Arts>

27. This color is repeated twice in the title of a Robert Burns poem that compares love to a plant. A Brian Jacques series of young adult novels is titled for a wall of this color. Name this color of many rubies and roses.
ANSWER: **red** [or ***Red****wall*] <Language Arts>

28. These people lost the Battle of Nedao under their king Ellac. Flavius Aetius (“ee-TEE-us”) and Theodoric allied to oppose these people at the Battle of Chalons (“sha-LON”). Pope Leo I convinced these people to not sack Rome in 452 CE. What nomadic people were led by the “Scourge of God,” Attila?
ANSWER: **Hun**s [or **Hunni**; or **Chuni**] <Social Studies>

29. When this singer headlined the 2015 Super Bowl halftime show, a background dancer known as "Left Shark" gained fame for being out of sync. In 2025, this singer was photographed going on dates with former Canadian Prime Minister Justin Trudeau. Name this pop singer of "California Gurls" and "Teenage Dream."
ANSWER: Katy **Perry** [accept Katheryn Elizabeth **Hudson**] <Current Events/Pop Culture>

30. Pencil and paper ready. Betty must find the shared root between the equations $x^2 + 15x = -56$ and $x^2 + 4x = 21$. By rearranging the equations to get zero on one side, factoring each equation into two parts, and finding the resultant roots, she finds what shared root?
ANSWER: **-7** <Computational Math>

1. Answer the following about Lent:
1. Lent is the period before this holiday, which celebrates Jesus's resurrection. Children hunt for eggs during this holiday.
ANSWER: **Easter** Sunday [or **Pascha**; or **Resurrection Sunday**]
2. On the first day of Lent, crosses made using this substance are drawn on peoples' foreheads.
ANSWER: **ash** [or **Ash** Wednesday]
3. Lent lasts for this many days, echoing how Jesus spent this many days tempted by Satan in the desert.
ANSWER: **forty**
4. In this pre-Lent period of revelry, Christians consume meat and alcohol they must forgo during Lent.
ANSWER: **Carnival** [or **Shrovetide**]

2. Answer the following about "I want" songs in musicals.
1. In this musical, Simba sings "I Just Can't Wait To Be King".
ANSWER: ***The Lion King***
2. In this musical, Elphaba sings "The Wizard and I" after meeting with Madame Morrible.
ANSWER: ***Wicked***
3. In this song, Hamilton claims "I'm just like my country/I'm young, scrappy and hungry" and that he is "not throwin' away [the title concept]."
ANSWER: "**My Shot**"
4. This character sings the song "Waving Through a Window" in a musical titled for him. The role of this character was originated by Ben Platt who also played this character in a 2021 movie adaptation of that musical.
ANSWER: **Evan Hansen** [accept either underlined portion; accept *Dear **Evan Hansen***]

3. Answer the following about a certain quantity:
1. Gibbs free energy is calculated by subtracting temperature times this quantity from enthalpy which represents the amount of disorder in a system.
ANSWER: **entropy**
2. When the Gibbs free energy is negative, a reaction is described by this term.
ANSWER: **spontaneous** [or **thermodynamically favorable**]
3. Gibbs free energy can also be calculated as the gas constant times temperature times the natural log of this constant, which is calculated as the molarity of products and reactants raised to the power of their mole ratios.
ANSWER: **equilibrium** constant [prompt on K]
4. This equation was derived from a way to calculate Gibbs free energy and describes cell potential in relation to the standard potential and reaction quotient of a cell.
ANSWER: **Nernst** equation

4. Answer some questions about star crossed lovers:

1. The term “star-cross’d lovers” comes from this Shakespeare tragedy, in which the feud between the Capulets and Montagues ultimately kills the title characters.

ANSWER: ***Romeo and Juliet***

2. This novel by Emily Brontë contains the marriage between Isabella Linton and Heathcliff, though the latter actually loves the deceased Catherine Earnshaw.

ANSWER: ***Wuthering Heights***

3. In this author’s novel *Never Let Me Go*, the lovers Kathy and Tommy are unable to live a long life due to them being raised as organ donors meant to die young. This author also wrote *An Artist of the Floating World*.

ANSWER: Kazuo **Ishiguro**

4. This novel sees two cancer patients visit the Anne Frank House in Amsterdam, but unfortunately one of them, Augustus Waters, dies of cancer following a profession of love to the other

ANSWER: *The* ***Fault in Our Stars***

# Quarter Three

**CATEGORY: William Shakespeare**
Answer the following about William Shakespeare:
1. Pair of Italian "star-cross'd lovers" who title one of his tragedies.
ANSWER: **Romeo and Juliet**
2. Dictator who is told to "beware the ides of March" before being stabbed in the Roman Senate.
ANSWER: **Julius Caesar**
3. Country whose king Duncan is treacherously murdered by Macbeth.
ANSWER: **Scotland**
4. Woman smothered by her husband Othello.
ANSWER: **Desdemona**
5. Jew who converts to Christianity after failing to receive his "pound of flesh" in *The Merchant of Venice*
ANSWER: **Shylock**
6. Comedy where a shipwreck separates Sebastian from his cross-dressing twin Viola.
ANSWER: **Twelfth Night**
7. Non-Mantuan city that is the partial setting of *Romeo and Juliet*, and a play titled for its "Two Gentlemen."
ANSWER: **Verona**
8. Real river of which Shakespeare is the "Bard of," which his hometown of Stratford sits "upon."
ANSWER: **Avon**
9. Play set in Roman Britain which ends shortly after a marriage between Imogen and Posthumus.
ANSWER: **Cymbeline**
10. First name of Shakespeare's only son with Anne Hatheway, who may have inspired his play about a Danish prince.
ANSWER: **Hamnet** Shakespeare

**CATEGORY: Greek Gods**
Name these Greek gods:
1. The king of the gods who ruled from Mount Olympus
ANSWER: **Zeus**
2. God of the sea, earthquakes, and horses
ANSWER: **Poseidon**
3. Goddess of wisdom, war, and crafts, born from a head
ANSWER: **Athena**
4. God of war and bloodshed and son of Hera
ANSWER: **Ares**
5. Goddess of the harvest and agriculture, mother of Persephone
ANSWER: **Demeter**
6. Goddess of the hearth and home
ANSWER: **Hestia**
7. God of love, often depicted with a bow and arrows
ANSWER: **Eros**
8. Primordial god of the sky, father of the Titans
ANSWER: **Uranus**
9. Goddess of magic, witchcraft, and crossroads, often depicted holding torches
ANSWER: **Hecate**
10. The personification of death
ANSWER: **Thanatos**

**CATEGORY: The Heart**

Answer the following about the heart in humans:

1. The heart is the central part of this body system divided into systemic and pulmonary parts.

ANSWER: **circulatory** system [accept **cardiovascular** system]

2. The heart pumps this red liquid that circulates throughout many vessels.

ANSWER: **blood**

3. Deoxygenated blood travels from the heart to this organ in its pulmonary circuit.

ANSWER: **lung**s

4. Cardiac muscle cells have multiple of these organelles that produce ATP.

ANSWER: **mitochondria**

5. These blood vessels carry blood away from the heart, contrasting with veins.

ANSWER: **artery**

6. The largest artery on top of the heart supplies blood throughout the body.

ANSWER: **aorta**

7. These upper chambers of the heart receive blood from the rest of the body.

ANSWER: **atria**

8. This quantity in the ventricle remains constant when the heart makes a beating sound.

ANSWER: **volume**

9. This primary pacemaker of the heart releases impulses, causing contraction.

ANSWER: **sinoatrial node** [or **SA node**]

10. This electrocardiogram wave known by three letters can be seen when the heart undergoes atrial systole.

ANSWER: **QRS**

# Quarter Four

31. In this novella, the title character talks about the "Great DiMaggio" to Manolin and laments an 84-day streak of failures. A fisherman struggles to bring a huge marlin to shore in what novella by Ernest Hemingway?
ANSWER: *The* ***Old Man and the Sea*** <Language Arts>

32. A type of these animals endemic to Hawaii is the*nene* ("nay-nay"). A head-knob and good posture characterize the "Chinese" type of these birds, whose males are called "ganders." Which honking waterfowl are larger than ducks but smaller than swans?
ANSWER: **goose** [or **geese**; accept Hawaiian **goose**, greylag **goose**, and Chinese **goose**] <Science>

33. This game's Hall of Legends, established in 2024, features five-time world champion Faker. Yasuo and Jinx are playable characters in what Riot Games MOBA that inspired the series *Arcane*?
ANSWER: ***League of Legends*** <Current Events/Pop Culture>

34. This figure's response of "man" was the correct answer to the Sphinx's riddle. King Laius ("LYE-us") was killed by this King of Thebes, who went on to wed Jocasta. Name this figure who killed his father and married his mother.
ANSWER: **Oedipus** ("ED-uh-puss") <Mythology/Religion/Philosophy>

35. A type of these devices named for Hugh Blackburn can be used to create Lissajous ("LEASE-ah-zhu") curves. The period of these devices is proportional to the square root of length over little g under the small angle approximation. What devices consist of a mass on a string that swings back and forth?
ANSWER: **pendulum**s [or **pendula**; accept double **pendulum**s or double **pendula**; accept Blackburn **pendulum**s; prompt on simple harmonic oscillators or SHOs] <Science>

36. Many residents of this colony fled religious persecution from a neighbor during the Antinomian ("anti-NOHM-ian") Controversy. During an exile from the Massachusetts Bay, this colony was founded by Roger Williams. What colony, whose capital was Providence, lends its name to the smallest U.S. state?
ANSWER: Colony of **Rhode Island** and Providence Plantations [accept **Providence Plantations** before "Providence" is read] <Social Studies>

37. A sailor in this collection is flown by a giant roc into the Valley of Diamonds. The treasure of forty thieves is stolen by a character who states "open sesame" in a story from this collection. Scheherazade ("sheh-HAIR-uh-zahd") is the narrator of what collection of stories whose protagonists include Sinbad and Ali Baba?
ANSWER: ***One Thousand and One Nights*** [or *A* ***Thousand and One Nights*** or *The* ***Arabian Nights*** or ***Alf Laylah wa-Laylah***] <Language Arts>

38. Pencil and paper ready. What is the area of a square with a perimeter of 32 inches? It may help to first find the side length of the square.
ANSWER: **64** square inches <Computational Math>

39. The natural log of this operation is close to n ln n, minus n, plus an error term, by Stirling's approximation. Doing this operation on 4 gives 24, and on 5 gives 120. What multiplicative operation is denoted by an exclamation point?
ANSWER: **factorial** <Math>

40. These fragments of cytoplasm form a “plug” as part of hemostasis, which occurs at the site of a cut or wound. What things in blood clump to form a clot?
ANSWER: **platelet**s [or **thrombocyte**s] <Science>

41. This type of poem includes a cutting word known as kireji (“kee-reh-jee”). This type of poem comprises the first stanza of a renga. Examples of these poems can be found in the collection *The Narrow Road to the Deep North*. Matsuo Basho was a master of what Japanese poetry style that uses a 5-7-5 syllable pattern?
ANSWER: **haiku** [or **hokku**] <Language Arts>

42. Examples of these things in triangles can be called “cevians” (“see-vee-ens”). In geometry, one of these things can be represented by a bar over two capital letters. What is the name for a straight mathematical object that is bounded at both ends?
ANSWER: line **segment**s [prompt on lines or straight lines] <Math>

43. This battle’s losing commander surrendered by having Charles O’Hara deliver his sword. The Comte de Grasse and Comte de Rochambeau (“row-shawm-BOH”) aided this battle's winning side. After this battle, soldiers could hear “The World Turned Upside Down” being played. Charles Cornwallis lost what final major battle of the American Revolution?
ANSWER: Battle of **Yorktown** [or the Siege of **Yorktown**] <Social Studies>

44. This quantity equals k times the log of the number of microstates, an equation inscribed on the tomb of Ludwig Boltzmann. This quantity always increases in a closed system according to the second law of thermodynamics. A capital S symbolizes what measure of disorder in a system?
ANSWER: **entropy** [accept **S** before mentioned] <Science>

45. Pencil and paper ready. If Jeremy has 3 quarters, 20 pennies, 3 dimes, and 5 nickels, how much money does he have?
ANSWER: $**1.50** <Computational Math>

46. This author wrote an 1878 novel whose epigraph is "Vengeance is mine, I shall repay.” In that novel by this author, the title noblewoman throws herself under a train following an affair with Count Vronsky. What author of *Anna Karenina* wrote about the invasion of Russia in the long novel *War and Peace*?
ANSWER: Leo **Tolstoy** <Language Arts>

47. In an opera titled for this figure that contains the “Can-Can,” he descends into the underworld after his wife dies. Jacques Offenbach depicted what mythological musician “in the Underworld” trying to convince Hades to free his wife, Eurydice (“yoo-RID-ih-see”)?
ANSWER: **Orpheus** <Fine Arts>

48. This country was ruled by foreign rulers during the Hyksos period, and again during the Ptolemaic (“toh-leh-MAY-ik”) dynasty. A city in this country was home to a lighthouse that was destroyed in an earthquake and a library that was accidentally burned by Julius Caesar. What present-day country is home to pyramids built by Khufu and Khafre (“KAH-fruh”) located in Giza?
ANSWER: (Ancient) **Egypt** <Social Studies>

49. This planet’s surface was mapped by the Magellan probe. This planet contains clouds made of sulfuric acid. This planet’s carbon dioxide-based atmosphere contributes to a runaway greenhouse effect. The highest temperature in the solar system has been measured on what second planet from the sun?
ANSWER: **Venus** <Science>

50. These things are identified with the pilcrow symbol. Three of these things are between an intro and a conclusion in the commonly-taught “hamburger essay” format. A common misconception holds that what typographical sections should be made of three to five sentences?
ANSWER: **paragraph**s [accept body **paragraph**s; prompt on sections] <Language Arts>