



CATEGORY ROUND

American Literature: Literary Adventures

Team A: What type of novel, exemplified by *Gil Blas*, generally has a rascally young protagonist who escapes dangers by his wits?

ANSWER: a **picaresque** novel

Team B: What picaresque novel tells of a young Spanish boy who uses his wits to endure a blind beggar and other masters?

ANSWER: ***Lazarillo de Tormes***

Tossup: This character, after failing to thread a needle, is caught pretending to be a girl. Earlier he lies to two men by claiming that his companion was his father and was infected with smallpox. This man's father won custody of him after a new judge overruled Judge Thatcher's decision. This character falsely claims that he is George Jackson when he stumbles upon the Shepherdsons and Grangerfords feud. He misses a turn to Cairo, sending him and the former slave Jim down the Mississippi River. Name this protagonist of a Mark Twain novel, who is also friends with Tom Sawyer.

ANSWER: **Huckleberry** Finn [or Huckleberry **Finn**; or **Huck** Finn; or Huck **Finn**]

Mathematics: Polynomials (All questions in this round are 30 seconds)

Team B: Find all solutions to the equation $x^3 + 3x^2 - 4x - 12 = 0$.

ANSWER: $x = \underline{2}$, $x = \underline{-2}$, and $x = \underline{-3}$ [accept answers in any order; do not accept partial answers]

Team A: Find the point of intersection of the lines $y = 2x + 5$ and $y = -4x - 7$.

ANSWER: **$(-2, 1)$** [or **$x = -2$** and **$y = 1$**]

Tossup: This Greek letter denotes the function that is the derivative of the unit step function. That function named for this letter is zero everywhere except zero, where it is infinite, and is also named for Dirac. With epsilon, this letter names proofs used to prove limit statements. An upside down form of this letter, the nabla, is used to represent the gradient. This letter denotes the discriminant of a polynomial. Identify this Greek letter often used to symbolize the change in a quantity.

ANSWER: **delta**

World History: Wars

Team A: What war fought from 1740 to 1748 was started in part over Frederick the Great's attempts to gain Silesia, using as a pretext the illegality of the Pragmatic Sanction leaving the throne to a woman?

ANSWER: War of the **Austrian Succession**

Team B: What war fought from 1642 to 1651 included the Battle of Naseby won by the New Model Army?

ANSWER: **English Civil War**

Tossup: Adolphus Slade led one side in this conflict's Battle of Sinope. During this conflict, a woman known as the "lady of the lamp" rose to prominence; that woman was Florence Nightingale. This war included the Siege of Sevastopol and the Battle of Balaclava, which included the Charge of the Light Brigade. Name this war lasting from 1853 to 1856, in which Britain, France, and the Ottoman Empire defeated Russia in fighting that took place primarily on the namesake peninsula.

ANSWER: **Crimean War**

Fine Arts: Cities and Museums

Team B: This American city's Art Institute houses Georges Seurat's *A Sunday Afternoon on the Island of La Grand Jatte*. This city is also home to Millennium Park.

ANSWER: **Chicago**

Team A: This American city's National Gallery of Art houses Leonardo's *Ginerva de' Benci*, as well as Copley's *Watson and the Shark*. It is also home to the John F. Kennedy Center for the Performing Arts.

ANSWER: **Washington, D.C.**

Tossup: An art museum in this city was built for the 1904 World's Fair and was constructed by Cass Gilbert in its neighborhood of Forest Park. The first major skyscraper was a ten-story red brick building in this city designed by Dankmar Adler and Louis Sullivan. This home of the Wainwright Building also contains the Jefferson National Expansion Memorial, which houses a steel structure in this city which, at 630 feet, is the tallest monument in the U.S. Identify this Midwestern city which is home to Eero Saarinen's Gateway Arch.

ANSWER: **St. Louis, Missouri**

Life Sciences: Growth

Team A: This is the name for the phenomenon of an organism growing towards a light source.

ANSWER: **phototropism**

Team B: The spitzenkörper is an organelle needed for the growth of these structures, which are filaments that make up the body of a fungus.

ANSWER: **hyphae**

In some organisms, this organelle possesses a structure called a pyrenoid, which regulates diffusion. Another structure in this organelle contains the cytochrome b6/f complex. This organelle contains the TIC and TOC translocases. Lamellae connect the grana within this organelle, and the stroma is the fluid which surrounds thylakoids in this organelle. The aforementioned stroma is the site of the Calvin cycle in this organelle, which is found in photosynthetic organisms. Identify this organelle whose color comes from its chlorophyll.

ANSWER: **chloroplasts**

World Literature: Innkeepers in Literature

Team B: Harry Bailey is the innkeeper of the Tabard who suggests a group of pilgrims take turns telling stories in what collection?

ANSWER: *The Canterbury Tales*

Team A: Damon Wildeve is a failed engineer and innkeeper in what Thomas Hardy novel, in which Clym Yeobright plans to become a schoolteacher in his hometown in Egdon Heath?

ANSWER: *The Return of the Native*

Tossup: In this novel, Mr. Macy often tells stories in the Rainbow Inn. In this novel, a member of the Dissenting Chapel named William Dane accuses another character of theft. Another character in this novel passes out from opium while traveling to the Red House, and the son of Dolly Winthrop, Aaron, marries a woman whom Nancy Lammeter refused to adopt. In this novel, the remains of Dunsey are found in a quarry beside the title character's stolen gold. Name this novel about the title weaver who cares for Eppie, a work by George Eliot.

ANSWER: *Silas Marner*

US Government/Economics: ECONOMISTS

Team A: What thinker from the Chicago school formulated a namesake theorem regarding externalities in his paper "The Problem of Social Cost"?

ANSWER: Ronald **Coase**

Team B: What social choice theorist formulated a namesake "impossibility theorem" about the fairness of voting systems?

ANSWER: Kenneth Joseph **Arrow**

Tossup: This thinker explained how interest rates are determined using his concept of liquidity preference. This thinker criticized the massive reparations exacted from Germany in the Treaty of Versailles in his *The Economic Consequences of the Peace*. He argued for the necessity of increasing aggregate demand in a book which influenced American policies adopted during the Great Depression. Name this British economist who advocated deficit spending in *The General Theory of Employment, Interest, and Money*.

ANSWER: John Maynard **Keynes**

Physical Sciences: Niels Bohr

Team B: This assistant to Niels Bohr developed the principle that it is impossible to measure to arbitrary precision the position and momentum of a particle.

ANSWER: Werner **Heisenberg**

Team A: Bohr developed the interpretation of quantum mechanics named for this Danish city.

ANSWER: **Copenhagen**

Niels Bohr proposed stationary orbits and the quantization of this quantity in order to formulate his model of the atom, showing that it is an integer multiple of h -bar. Kinetic energy equals this quantity squared divided by twice the moment of inertia. The shape of an atomic orbital is given by this quantity's namesake quantum number. Kepler's Second Law results from the conservation of this quantity. It equals the product of mass, velocity, and radius for an object in uniform circular motion, and time derivative of it is torque. Name this quantity symbolized L .

ANSWER: **angular momentum** [or **L** before mention]

World Geography: Preserved Stuff

Team A: The Catal Huyuk and Troy archaeological sites are in what modern-day country?

ANSWER: Republic of **Turkey** [or **Türkiye** Cumhuriyeti]

Team B: Otzi the Iceman, a 6000-year-old corpse mummified by ice, was found in what mountain range containing the Matterhorn?

ANSWER: the **Alps**

Tossup: This desert is the only remaining home of an endangered wild donkey species, the khulan. In part of this desert, the "White Cave" houses proto-human artifacts up to seven hundred thousand years old. The Mogao Caves here hold a cache of Silk Road art. The southern portion of this desert comprises the Alxa (AL-shuh) Plateau, and it is found south of the Altai Mountains. Name this desert of northern China and southern Mongolia.

ANSWER: **Gobi** desert

American History: American Race Riots

Team B: What Illinois city, home to Abraham Lincoln for twenty-four years, suffered a race riot that led to the formation of the NAACP?

ANSWER: **Springfield**

Team A: What state, whose largest city experienced a 1921 race riot, is called the Sooner State?

ANSWER: **Oklahoma**

Tossup: This state's largest city experienced the 12th Street race riot in 1967. A Secretary of State from this state negotiated the Clayton-Bulwer treaty for the Buchanan administration and ran for president against Zachary Taylor in 1848. Governors of this state included Stevens Mason and Lewis Cass. Gerald Ford served as a representative of this state, which was governed by George W. Romney, the father of Mitt Romney. Name this state where Henry Ford founded his motor company in a suburb of Detroit.

ANSWER: **Michigan**

The Letter L

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The Letter L ANSWERS

1. Thomas Edward **Lawrence** [or **Lawrence of Arabia**]
2. **lanthanides**
3. the **lung**
4. **Lorraine**
5. John **le Carre**
6. Peter **Lombard**
7. **logical** positivism
8. **Lenz's** Law
9. Philip **Larkin**
10. Inspector **Lestrade**
11. Lilly **Ledbetter**
12. Robert Edward **Lee**
13. Alexander Joseph "Lex" **Luthor**
14. Ring **Lardner**
15. **Leto** [or **Latona**]
16. **Louis XIII**
17. **Lycurgus**
18. **liquidity trap**
19. Doris **Lessing**
20. **L'Hopital's** Rule

FINAL ROUND

1. This person was said to have a thigh made of gold, and he advocated arbitrary restrictions such as always putting on one's right shoe first and never eating beans. The central tenet of his philosophy was "metempsychosis," the idea that one's soul migrates into other beings after death. He ordered the murder of Hippasus for proposing irrational numbers, which contradicted his math-based philosophy. Identify this pre-Socratic thinker who discovered a namesake theorem about triangles.

ANSWER: **Pythagoras**

019-13-81-07101

2. One character in this novel gives up the key to Martello Tower and then has a vision of umbilical cords linking all humans back to Eve. Another character in this novel remembers Rudy, his son who died in infancy, while listening to Father Coffey at a wake for Paddy Dignam. A singer in this novel is carrying on an affair with her tour manager, Blazes Boylan. This novel is set on the date of the author's meeting with Nora Barnacle, June 16, 1904, now known as "Bloomsday." Name this enormous novel about Leopold Bloom's travels through Dublin, written by James Joyce.

ANSWER: **Ulysses**

019-13-81-07102

3. One member of this family names the temperature at which a ferromagnetic material becomes paramagnetic. Two brothers with this last name discovered piezoelectricity, which would be used in a very sensitive electrometer to discover two new elements. A husband and wife team with this last name created new radioactive elements by bombarding elements with alpha particles. One person with this last name is the only one to have one two Nobels in the sciences. Identify this last name of the husband and wife team that discovered radium and polonium.

ANSWER: **Curie** [prompt on **Joliot**-Curie]

066-13-81-07103

4. The beginning of this ballet features the entrances of characters such as Breadcrumb and Coulante. Its second act features the technically demanding Rose adagio between the title character and her suitors. Its central conflict emerges when Catallabutte forgets to invite Carabosse to a christening party, leading her to place a curse involving the title character pricking her finger on a spindle. Name this ballet about a princess who is woken up by a kiss, by Pyotr Ilyich Tchaikovsky.

ANSWER: *The **Sleeping Beauty*** [or ***Spyashchaya krasavitsa***]

192-13-81-07104

5. One member of this family was a disciple of Howard Pyle in the Brandywine School, painted the massive *Apotheosis of the Family*, and illustrated the *Scribner's Classics* series. Another member of this family made 247 depictions of Helga Testorf, as well as a painting in which a woman looks at a distant farmhouse from a position on the ground in a pink dress. Give this surname of illustrator N.C. and the painter of *Christina's World*, Andrew.

ANSWER: **Wyeth**

019-13-81-07105

6. One narrator created by this author refers to past incidents such as the "Trevor Richardson affair" and the "Mannering case" and believes that the disappearance of his parents in Shanghai is the cause of the Pacific theater of World War II. This author, who created Christopher Banks in *When We Were Orphans*, also created a protagonist distressed by a housekeeper's long marriage to Mr. Benn. This author depicted the arrival of Mr. Farraday to take over Darlington Hall in that novel about the butler Stevens. Name this British author of *The Remains of the Day*.

ANSWER: Kazuo **Ishiguro**

019-13-81-07106

7. Mario Vargas Llosa wrote a "retelling" of this man's most famous novel entitled *Bad Girl*. The veil of Tanit is stolen by Matho in this man's novel *Salamambo*. After moving to Yonville, a character in a novel by this man borrows money from Lheureux and gives birth to Berthe. In that novel by this man, the protagonist's husband botches an experimental surgery on the club-footed boy Hippolyte. That protagonist has affairs with Leon Dupuis and Rodolphe Boulanger. Name this French author of *Madame Bovary*.

ANSWER: Gustave **Flaubert**

149-13-81-07107

8. A museum of this mountain range is found at Blue Mountain Lake. Both of the wollastonite mines in the U.S. are in this mountain range. One peak in this mountain range is named for its near-vertical side as Whiteface Mountain. This range contains recreational hotspots around the Saranac River, Lake George, and Lake Placid. It was formed as part of the Canadian Shield rather than the Appalachians, and it extends from the St. Lawrence valley near Lake Champlain to the Mohawk valley. Name this mountain range of northeastern New York.

ANSWER: **Adirondack** Mountains [or the **Adirondacks**]

019-13-81-07108

9. The inventor of this product abandoned his business interests in 1960 and spent the last fourteen years of his life as a missionary in Bolivia. In 1962, Homer Fesperman and Charles Weagley wrote the iconic jingle for this product, which notes that it's "fun for a girl or a boy." It was invented in 1946 by shipyard engineer Richard James, who demonstrated it at a Gimbel's store using an inclined plane. Identify this toy which consists of a coiled spring.

ANSWER: **Slinky**

019-13-81-07109

10. This emperor defeated Lucius Antonius in a campaign in Perusia. The *Res Gestae* in Ankara features an inscription detailing this ruler's conquests and deeds. This ruler gained political leverage by marrying Scribonia, and rued the Roman loss to Arminius at the Battle of Teutoberg Forest. This man formed the Second Triumvirate with Lepidus and another man, whom this leader defeated at the Battle of Actium. Name this man who defeated Mark Antony and was the first Roman Emperor.

ANSWER: **Augustus** Caesar [or Gaius Julius Caesar **Octavianus**; or **Octavius**]

192-13-81-07110

11. One king of this name was responsible for the murder of Alfred the Aetheling, was the son of Canute, and was known as "Harefoot." Another king of this name was captured by Guy I of Ponthieu after a shipwreck and later defeated Tostig at the Battle of Stamford Bridge. That king of this name was shown being killed by an arrow to his eye in the Bayeux Tapestry. Give this name of the last Anglo-Saxon king of England who died in his battle against William the Conqueror at Hastings.

ANSWER: **Harold** [or **Harold I**; or **Harold** Harefoot; or **Harold II**; or **Harold** Godwinson]

030-13-81-07111

12. This composer utilized maracas and bongos in his *Cuban Overture*. A fisherman named Jake sings "A Woman is a Sometime Thing" in an opera by this composer, which includes an aria about a time "when the livin' is easy." His most famous composition, which premiered during the "An Experiment in Modern Music" concert, opens with a seventeen-note clarinet glissando. Identify this American composer of *Porgy and Bess* and *Rhapsody in Blue*.

ANSWER: George **Gershwin**

189-13-81-07112

13. This poet wrote a poem whose line “Thus in silence in dreams’ projections” is inscribed in the Dupont Circle Metro Station in DC. He claimed he was drunk when he wrote his temperance novel *Franklin Evans*. In one poem, he responds, “I guess it is the handkerchief of the Lord” when asked, “What is the grass?” This poet wrote, “For you they call, the swaying mass,” in a poem which begins by noting that “our fearful trip is done; the ship has weathered every rack, the prize we sought is won.” Name this poet of “O Captain! My Captain!” and the collection *Leaves of Grass*.

ANSWER: Walt **Whitman** [or Walter **Whitman**]

015-13-81-07113

14. This interaction explains why the boiling point for butane is higher than for isobutene despite both having the same molecular formula. Willem Keesom explained a type of this interaction that arises from molecules having elements with different electronegativities. This force can be caused by the temporary clustering of electrons at one end of a molecule, which can create an induced dipole. That dispersion type of this force was described by Fritz London. Name this force that attracts molecules together more weakly than covalent and hydrogen bonds.

ANSWER: **Van der Waals** force [or **dipole-dipole** interaction before "dipole"; or London **dispersion** force before read; or **London** force before read]

023-13-81-07114

15. During a presidential election, one man holding this post was asked by Bernard Shaw if he favored the death penalty for a hypothetical rapist and murderer of his wife. That man in this post was attacked by an ad showing him driving a tank and another connecting him to criminal Willie Horton. The longest serving man in this post was the Democratic loser of the 1988 presidential election, Michael Dukakis. This post is currently held by Deval Patrick, who succeeded Mitt Romney in 2007. Name this position that leads a certain New England state.

ANSWER: **Governor** of the Commonwealth of **Massachusetts** [prompt on partial answer]

052-13-81-07115

16. With reflexive verbs in this aspect, French uses “être” rather than “avoir” as the auxiliary verb. Spanish uses “haber” as the auxiliary verb to this aspect in all cases. In English, this aspect is formed by following a conjugated form of “to have” with the past participle. Name this verb aspect that refers to past actions bearing on the present, as in the phrase, “I have finished,” and in most languages is closely linked to the past tense.

ANSWER: **perfect** aspect [or **perfect** tense]

121-13-81-07116

17. In the months before this war, Britain almost became involved when the troop carrier *Kowshing* was sunk. This war began over an accused violation of the Lito Convention, when one side sent troops to suppress the Tonghak rebellion. This war resulted in the Pescadores, the Liaodong Peninsula, and Taiwan being ceded to the victors under the Treaty of Shimonoseki. Name this war over control of Korea between two other East Asian powers, which was fought from 1894 to 1895.

ANSWER: First **Sino-Japanese** War [or First **China-Japan** War]

019-13-81-07117

18. Cú Roí (COO roy) urges three rivals to perform this action in the Irish story of the feast of Bricriu (BRYE-croo). During the Aesir-Vanir war, Odin found Mimir after this had occurred to him. Diomedes (dye-AH-muh-deez) does this to the slow-witted Dolon in the Iliad, and another instance of it causes the birth of Chrysaor (chris-EY-or) and Pegasus from the resulting wound. Identify this act which Perseus does after defeating Medusa and David does after defeating Goliath.

ANSWER: **decapitation** [or word forms; or **beheading**; or **cutting off heads**, etc.; do not accept or prompt on “killing” or similar answers, since the whole point of the story is that Cu Roi is not killed by having his head cut off]

019-13-81-07118

19. The probability the time-averaged value for this property takes a given value over the probability it takes the opposite value follows an exponential function, as shown in the fluctuation theorem. The H-theorem shows the change of this property in an ideal gas is irreversible. The H-theorem was developed by the same man who defined this property as the logarithm of available microstate times Boltzmann's constant. Clausius define it as the line integral of change in heat over temperature. The second law of thermodynamics states this value must universally be increasing. Name this measure of a system's disorder.

ANSWER: **entropy**

121-13-81-07119

20. This organ contains the perisinusoidal space, also known as the space of Disse, contain fat-storing cells called Ito cells. Other cells in this organ include specialized stellate macrophages known as Kupffer cells. This organ connects to the diaphragm at its "bare area." Blood is conducted to this organ by the hepatic portal vein, and cirrhosis of this organ is commonly caused by alcoholism. Identify this vital organ which produces bile.

ANSWER: the **liver**

126-13-81-07120

The Letter L

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The Letter L

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