

Playoff Round 2

First Half

(1) **One of these expressions begins by defining “an essence of” and “necessarily exists” before stating five axioms and using modal logic to reach its conclusion. Another of these ontological arguments was posed by St. Anselm and argues that the subject is “that for which no greater can be conceived,” but because (*) existence is greater than non-existence, non-existence can be ruled out. For ten points, name these philosophical arguments that attempt to justify a theological position that atheists reject.**

ANSWER: (ontological) proofs of the existence of God (do not accept or prompt descriptions of God not existing; accept ontological arguments or ontological proofs before “ontological” is said)

(1) This thinker argued that five basic relationships, like parent to child and ruler to subject, must be carried out with consideration and kind treatment. For ten points each,

Name this Chinese philosopher of the Spring and Autumn period, who mentored Mencius and advocated filial piety, or respect for one’s elders.

ANSWER: Confucius (or Kong Fuzi)

The Four Books of Confucian thought include *Great Learning*, *Doctrine of the Mean*, *Mencius*, and this collection of Confucian speeches.

ANSWER: Analects (or Lunyu)

This classic text includes a series of 64 hexagrams used in divination. Confucius wrote a commentary on this text called the Ten Wings.

ANSWER: I Ching (or Book of Changes)

(2) **When this leader conquered Rhodes, he forced the Knights Hospitaller to flee to Malta. Shortly after, this husband of Roxelana supported John Zapolya to lead Hungary after he defeated Louis II at the Battle of Mohacs [mo-hotch]. His most important domestic success was the clarification of the (*) legal code, after numerous contradictory rulings from prior sultans. For ten points, name this “lawgiver” who ruled from 1520 to 1566 as Sultan of the Ottoman Empire, often described as “the Magnificent.”**

ANSWER: Suleiman the Magnificent (or Suleiman the Lawgiver or Suleiman I)

(2) One side in this war nearly went to war with Britain in the Dogger Bank incident. For ten points each,

The Battles of Tsushima Strait and Port Arthur were fought in this war, which was ended by the Treaty of Portsmouth.

ANSWER: Russo-Japanese War

For brokering the Treaty of Portsmouth, this president became the first American to win a Nobel Peace Prize. That award came despite his imperialist foreign policy and support of “big-stick” diplomacy.

ANSWER: Theodore Roosevelt or Teddy Roosevelt (accept TR; prompt on “Roosevelt”)

Teddy Roosevelt also encouraged France to attend the Algeciras Conference, which smoothed over a dispute between France and Germany over this North African country across the Strait of Gibraltar from Spain.

ANSWER: Morocco (accept First Moroccan Crisis)

(3) **In one poem, physical existence in this location cannot traverse the Primum Mobile into the Empyrean. In another work, this place can be accessed by following the King’s Highway through the Wicket Gate. This location is made up of the five (*) planets, the sun, and moon in the third section of one poem, and Christian journeys here in John Bunyan’s allegorical novel *Pilgrim’s Progress*. For ten points, name this location visited in Dante’s *Paradiso*.**

ANSWER: heaven (accept Paradise or Paradiso before “Paradiso” is read; accept The Celestial City; accept clear equivalents)

(3) Answer the following questions about Edgar Allan Poe short stories for ten points each.

The narrator of “The Imp of the Perverse” performs this action with a poisonous candle before running out into the street and confessing. An orangutan is found to have committed this crime “in the Rue Morgue.”

ANSWER: murder (or equivalents, like killing; accept Murder in the Rue Morgue)

In another short story by Poe, one of these items is stolen by Minister D. This “Purloined” item is discovered to be hidden in plain sight on top of a fireplace.

ANSWER: letter (accept The Purloined Letter)

This detective in several Poe stories solves both the “Murders in the Rue Morgue” case and the case of “The Purloined Letter.”

ANSWER: C. Auguste Dupin (accept either underlined answer)

(4) **Every square matrix has a “characteristic” type of this expression. The Abel-Ruffini theorem says that this type of equation can’t have a general formula to solve it if its degree is greater than four, though the solutions to one type of this equation are given by the (*) quadratic formula.** For ten points, name this type of algebraic expression that can only include variables raised to non-negative integer powers and real coefficients, such as three x squared minus four.

ANSWER: polynomial (functions, expressions, etc.)

(4) Answer the following about trigonometric ratios for ten points each.

Trigonometry uses ratios of side lengths because two triangles have this property if they have the same angle measures. Triangles with this property have proportional side lengths.

ANSWER: similarity

In a right triangle, this value for an angle is the ratio of the opposite side to the hypotenuse.

ANSWER: cosine (prompt on “cos”)

This number is the cosine of a right angle and is the largest value that the cosine ratio can be equal to.

ANSWER: 1

(5) **This group’s creation was inspired by the rumored ODESSA program following World War II. This group was unable to destroy D’Qar, but is successful in taking out Hosnian Prime. General Hux is in charge of this group’s (*) largest weapon, Starkiller Base, a thinly-veiled reference to this organization’s predecessor’s Death Star.** For ten points, name this quasi-governmental military force that employs Kylo Ren and replaced the Empire in the seventh Star Wars film.

ANSWER: The First Order

(5) It’s May, so what better time to ask about non-traditional holiday songs? For ten points each,

Bobby Helms sings the most popular version of this song, that notes “What a bright time, it’s the right time to rock the night away.”

ANSWER: Jingle Bell Rock

This 1994 Mariah Carey single has become one of the most played holiday songs. In it, the singer doesn’t care about presents or hanging her stocking on the fireplace.

ANSWER: All I Want For Christmas Is You

Another 1994 addition to the Christmas canon is “The Chanukah Song,” first performed on an episode of *Saturday Night Live* by this star of *Happy Gilmore*, *The Wedding Singer*, and *Pixels*.

ANSWER: Adam Sandler

(6) **This constellation includes the Trapezium cluster, which formed out of the Messier 42 nebula. Barnard’s Loop is also visible in this constellation, as is the Horsehead Nebula. This constellation includes Rigel and Betelgeuse, and Alnitak, (*)** Alnilam, and Mintaka form a prominent feature in this constellation. For ten points, name this constellation, name for a Greek mythological hunter, whose “Belt” is easily visible in the wintertime night sky.

ANSWER: Orion (accept Orion’s Belt after “Alnitak” is said)

(6) Plants are photosynthetic, but some are also carnivorous. For ten points each,

Sticky hairs on the stem of this red angiosperm capture and kill insects, whose nutrients are absorbed through the roots. This member of the nightshade family was once believed to be poisonous, and people still can’t agree on whether it’s a fruit or a vegetable.

ANSWER: tomatoes

When insects touch two trigger hairs on the leaves of this carnivorous plant, the leaves snap shut to trap the insect for digestion

ANSWER: Venus fly traps (prompt on partial answers)

These carnivorous plants have a pitfall trap: a hanging, slippery cylinder filled with digestive juices.

ANSWER: pitcher plants (accept cobra lilies, but do not prompt on lilies)

(7) **A painting of this man shows him in front of an anachronistic flag and incorrectly depicts the sun rising. Grant Wood painted Parson Weems drawing back a curtain, revealing this man holding an axe. The Lansdowne and unfinished Athenaeum portraits of this man were created by (*)** Gilbert Stuart; the Lansdowne was saved from a fire by Dolley Madison. For ten points, name this American political figure who is depicted on the quarter and one-dollar bill.

ANSWER: George Washington

(7) This nursery rhyme takes its melody from a French verse, “Ah, vous dirai-je, Maman.” [ahh, voo dih-RAY-zhe, mama] For ten points each,

Name this nursery rhyme, whose melody is shared by the common Alphabet song and “Baa Baa Black Sheep.”

ANSWER: Twinkle Twinkle Little Star

At age 25, this child prodigy composer wrote the *Variations on “Ah vous dirai-je, Maman”* that popularized the “Twinkle, Twinkle” melody.

ANSWER: Wolfgang Amadeus Mozart

Another composer of variations on that melody was Johann Christoph Friedrich, a member of this illustrious German composing family.

ANSWER: Bach family

Sixty Second Rounds

The categories are ...

1. Literary Award Winners
2. Atlantic Islands
3. Elements
4. American Music

LITERARY AWARD WINNERS

What author won...

(1) the Hugo award for *Harry Potter and the Goblet of Fire*?

ANSWER: J. K. **Rowling** (or Joanne **Rowling** or Jo **Rowling**)

(2) the Nobel Prize in Literature after serving as British Prime Minister?

ANSWER: Sir Winston Leonard Spencer **Churchill**

(3) the Newbury medal for *The Giver* and *Number the Stars*?

ANSWER: Lois **Lowry** (or Lois Ann **Hammersburg**)

(4) a Nobel Prize for works like *A Farewell to Arms* and "The Snows of Kilimanjaro"?

ANSWER: Ernest Miller **Hemingway**

(5) the Booker Prize for *Midnight's Children*, a novel about Indian independence?

ANSWER: Salman **Rushdie**

(6) the 2010 Nobel for *Aunt Julia and the Scriptwriter*?

ANSWER: Mario **Vargas Llosa**

ATLANTIC ISLANDS

Which island group...

(1) Off the southern tip of South America has a name translating to “Land of Fire?”

ANSWER: **Tierra del Fuego**

(2) Extends off the southern coast of Florida?

ANSWER: Florida **Keys** (accept any specific Key, such as **Key West**, **Key Largo**, etc.)

(3) Was fought over by Margaret Thatcher’s United Kingdom and Argentina in the 1980s?

ANSWER: **Falkland** Islands (or Islas **Malvinas**)

(4) Is a country north of Cuba and east of Miami with capital Nassau?

ANSWER: The **Bahamas**

(5) Is a Spanish archipelago off the coast of Morocco and includes Tenerife?

ANSWER: **Canary** Islands

(6) Is, like Madeira, a Portuguese autonomous region some 800 miles west of Europe?

ANSWER: **Azores**

ELEMENTS

Which chemical element...

(1) Has atomic symbol K?

ANSWER: **Potassium**

(2) Has an atomic number of 5?

ANSWER: **Boron** (or **B**)

(3) Is the lightest noble gas?

ANSWER: **Helium** (or **He**)

(4) Rarely exists as the isotope tritium?

ANSWER: **Hydrogen** (or **H**)

(5) Is the lightest element that is purely radioactive and was the first usually-synthetic element to be produced?

ANSWER: **Technetium**

(6) Has an electron configuration of $1s^2, 2s^1$?

ANSWER: **Lithium** (or **Li**)

AMERICAN MUSIC

In American classical music – though the term “classical” got stretched a bit as the 20th century progressed – name the...

(1) Color that titles a George Gershwin *Rhapsody*.

ANSWER: Rhapsody in **Blue**

(2) ”March King” who penned “The Stars and Stripes Forever.”

ANSWER: John Philip **Sousa**

(3) Composer for the ballets *Rodeo* and *Appalachian Spring*.

ANSWER: Aaron **Copland**

(4) Composer of *Doctor Atomic* who shares his name with an American president or two.

ANSWER: John (Coolidge) **Adams** (no need to prompt, but do not accept John Luther Adams)

(5) Composer who called for four minutes and thirty-three seconds of silence as the entirety of one work.

ANSWER: John **Cage**

(6) Philip Glass opera that focuses on a German scientist and has no structured plot.

ANSWER: **Einstein on the Beach**

Second Half

(8) **In prokaryotes, peptidoglycan holds proteins of this structure together, and tiny holes form in it when peptidoglycan is deactivated. Plasmodesmata are gaps in this between plant cells to allow nutrient flow. Chitin creates this structure in fungi, and in plants, this structure is made of alpha- and beta-linked (*) cellulose that provides structural support. For ten points, name this organelle surrounding the cell membrane that is not present in animal cells.**

ANSWER: cell wall

(8) Answer the following about a common science fair instrument for ten points each.

These generators use a conveyor belt to build up millions of volts of static electricity, which is released in the form of sparks or lightning from a large metal sphere.

ANSWER: van de Graaff generator

Though van de Graaff generators build up high voltages, their shocks aren't dangerous because this quantity, the flow of electric charge, is low.

ANSWER: electric current

The charge of a van de Graaff generator is evenly distributed around the sphere, an example of this process. This process guarantees that electric charge will collect on the surface of a metal object, rather than inside it.

ANSWER: electrostatic induction (or word forms like induce)

(9) **One goddess of this domain loved the shepherd Endymion so much that Zeus cast him to eternal sleep so she could always see his sleeping face. Chang'e [CHONG-uh] became the Chinese goddess of this entity after eating a pill given to her husband; she lives with a jade (*) rabbit. A Greek goddess associated with this object was a huntress twin of Apollo. For ten points, name this heavenly body associated with Selene and Artemis, a celestial body that, in many myths, is chased by the Sun.**

ANSWER: the Moon

(9) Name some of Jesus's apostles for ten points each.

Jesus said that this apostle was the rock upon which he will build the church; as a result, this man is considered the first Pope.

ANSWER: Saint Peter

According to tradition, this apostle was the evangelist who wrote the only canonical non-synoptic gospel, as well as the Book of Revelation.

ANSWER: Saint John the Evangelist (or John the Divine or John the Theologian or John the Apostle; do not accept John the Baptist)

This apostle is said to have spread the church to India. He got one nickname from desiring to see and feel the wounds of the resurrected Christ.

ANSWER: Saint Thomas the Apostle (accept Doubting Thomas)

(10) **Andre Rigaud controlled much of this country until he lost the War of the Knives. Jean-Jacques Dessalines led this country to independence after the death of a man who was captured by Charles Leclerc. Later, this country was ruled by Jean-Bertrand Aristide and (*) Papa Doc Duvalier.** For ten points, name this country whose independence movement was led by Toussaint L'Ouverture, a former French colony that borders the Dominican Republic.

ANSWER: Republic of Haiti (accept Repiblik Dayti or Republique d'Haiti; accept Saint-Domingue until "Aristide")

(10) Answer the following about American farewell addresses for ten points each.

This man's Farewell Address warned about the dangers of political factions and foreign entanglement. In writing the address, this man established the precedent of presidents not serving more than two terms.

ANSWER: George Washington

This general gave a farewell speech in which he said that "old soldiers never die; they just fade away" after being relieved of command for insubordination to President Truman. He advocated using nuclear weapons against China in the Korean War.

ANSWER: Douglas MacArthur

President Eisenhower's farewell address warned America about this system, in which companies lobby the government to carry out a more aggressive foreign policy.

ANSWER: military-industrial complex (or military-industrial-Congressional complex)

(11) **This author wrote a work published under the name C.3.3. that notes “The coward does it with a kiss/the brave man with a sword!” in reference to his claim that “each man kills the thing he loves.” In a novel by this author, Basil Hallward is murdered by a young man whose (*) sins seemingly leave him unscathed, but which affect the title object. For ten points, name this Irish author of “The Ballad of Reading Gaol” [redding jail] and one novel, *The Picture of Dorian Gray*, and numerous comedic plays.**

ANSWER: Oscar Wilde

(11) In this play, a person claiming to be a lawyer named Balthazar notes that “The quality of mercy is not strained...it is twice blessed: it blesseth him that gives and him that takes.” For ten points each,

Name this Shakespearean play in which Antonio promises a “pound of flesh” as collateral for a loan from Shylock.

ANSWER: The Merchant of Venice

In *The Merchant of Venice*, Shylock is a member of this religious group until he converts to Christianity at the end of the play.

ANSWER: Judaism (accept word forms)

In order to argue at the trial, Portia and Nerissa do this. Other Shakespearean characters who do this include Rosalind in *As You Like It*, to test the love of Orlando, and Viola in *Twelfth Night*.

ANSWER: disguise themselves as men (accept equivalents, such as crossdressing; prompt on “disguise themselves” and equivalents)

(12) **An Ohio Senator with this surname co-sponsored a 1947 law restricting the rights of labor unions with Fred Hartley. A president with this surname served as the Governor-General of the Philippines and financially supported foreign countries in his policy of “dollar diplomacy.” That man was the only (*) President to also serve as Chief Justice of the Supreme Court. For ten points, name this surname of a large-bodied president who succeeded Theodore Roosevelt.**

ANSWER: Taft (accept Robert Taft or William Howard Taft)

(12) Answer the following about nuclear disasters for ten points each.

This disaster, in which a nuclear reactor in modern Ukraine exploded, led to the creation of a Zone of Exclusion around Pripyat.

ANSWER: Chernobyl disaster (or meltdown, etc.)

Another nuclear disaster occurred when this country’s Three Mile Island plant melted down. This country was the site of the first sustained artificial nuclear reaction.

ANSWER: United States of America (or USA or America)

Another nuclear disaster followed the 2011 earthquake and tsunami in Japan at the Daiichi [dai-ee-chee] power plant in this prefecture.

ANSWER: Fukushima prefecture (or Fukushima Daiichi nuclear power plant)

(13) **This author opened one of his novels by describing The Star-Spangled Banner as “gibberish sprinkled with question marks.” That novel about Dwayne Hoover and the fictional author Kilgore Trout is this author’s *Breakfast of Champions*. The protagonist of another of this author’s novels is transported to the (*) planet Tralfamadore and becomes “unstuck in time” after the firebombing of Dresden. For ten points, name this author who wrote about Billy Pilgrim in *Slaughterhouse-Five*.**

ANSWER: Kurt Vonnegut Jr.

(13) Answer the following about patient literature for ten points each.

In this Samuel Beckett play, Vladimir and Estragon spend two days awaiting the arrival of the title character, who never appears.

ANSWER: Waiting for Godot

J.M. Coetzee’s *Waiting for the Barbarians* describes a conflict between colonists and indigenous people in an empire inspired by this country, Coetzee’s birthland. Other Coetzee novels, like *Disgrace*, are more explicitly set in this country.

ANSWER: South Africa

Clifford Odets wrote *Waiting for Lefty*, a play inspired a taxi drivers’ strike in this city. Edward Albee’s *Zoo Story* is set in this city’s Central Park.

ANSWER: New York City (or NYC)

(14) **This quantity is equal to one over the square root of the permittivity multiplied by the permeability of free space. Leon Foucault used rotating mirrors to measure this quantity, which is constant for all forms of electromagnetic radiation in a vacuum. This constant is related to (*) mass and energy in the equation $E = mc^2$. For ten points, name this value, equal to 3 times 10^8 [ten to the eighth] meters per second, the “cosmic speed limit.”**

ANSWER: speed of light

(14) Answer the following about thermodynamics for ten points each.

Thermodynamics deals with this concept, which is energy that is passed within a system without the application of work. It can be transmitted through conduction, convection, or radiation.

ANSWER: heat

This unit is equal to the amount of energy needed to raise the temperature of a gram of water by one degree Celsius. A similar unit with the same name considers a kilogram of water and is often seen on food packaging.

ANSWER: (small or large) calorie

A calorimeter measures the heat of a chemical reaction, often by measuring the temperature change of a sample of water. This type of calorimeter uses a stainless steel vessel to hold a sample, which is ignited to create the temperature change. Contrary to its name, the apparatus can be used multiple times.

ANSWER: bomb calorimeter

Extra Question

Only read if you need a backup or tiebreaker!

(15) **In 1914 in this state, striking coal miners were killed in the Ludlow Massacre. This state's Mesa Verde National Park is home to numerous Pueblo archaeological sites. The five Flatirons rise near this state's city of Boulder, a suburb of this state's capital. This state names the (*) river that flows to Lake Mead through the Grand Canyon. For ten points, name this Rocky Mountain state that is home to a U.S. Mint in Denver.**

ANSWER: Colorado (accept Colorado River)