## Bowl Round 8

## First Half

(Tossup 1) Walter Damrosch gave a sluggish premiere of a so-called "rhapsodic ballet"' by this composer which features four taxi horns. One work by this composer of Cuban Overture was premiered at the concert "An Experiment in Modern Music" by Paul Whiteman's band, whose member Ross Gorman created its iconic opening, (*) a 17-note glissando on the clarinet. For 10 points, name this composer of An American in Paris and Rhapsody in Blue.

## Answer: George Gershwin

(Bonus 1) In this opera, the title princess of Ethiopia falls in love with a captain of the guard named Radamès, eventually accepting their fate trapped in a dark vault at opera's end. FTPE:
[10] Name this opera whose opening was delayed by the Franco-Prussian War. Isma'il Pasha paid one operattist to premiere it in Egypt, as it was set during the Old Kingdom.

## Part 1: Aida

[10] Aida is by Italian composer who also wrote Rigoletto and La Traviata.
Part 2: Guiseppe Verdi
[10] Fellow composer Donizetti acted as conductor for early performances of this Verdi opera about a Babylonian king's captivity of the Jewish people.
Part 3: Nabucco [Accept Nabucodonosor]
(Tossup 2) This god has eight forms called the Ashta Bhairava, which are responsible for the world's directions. This god was won over by his wife while listing his flaws in disguise; earlier he had incinerated the love god Kamadeva. (*) In order to preserve the world's knowledge, this god suppresses the dwarf Aspamara with his right foot. The white bull Nandi was a gift to this god. This god beheaded his son Ganesha while his wife Parvati was bathing. Ftp, name this "Destroyer" god of the Hindu Trimurti.
ANSWER: |Shiva|
(Bonus 2)This goddess obtained the Brl'ísingamen necklace by sleeping with each of the four dwarves who made it. For ten points each,
[10] Name this Vanir Norse goddess who was sent as a hostage at the end of the Aesir-Vanir war. This goddess's realm F'ólkvangr receives half the warriors who die in battle.
ANSWER: |Freyja|
[10] Freyja lives in this Norse realm of the gods, which is ruled over by Odin. This realm is connected to the world of people by the Bifrost, and it contains the afterlife destination Valhalla. ANSWER: |Asgard|
[10] Freyja rides a chariot pulled by two of these animals. Thor was unable to lift one of these animals when challenged to do so by Utgard-Loki, because it was actually the Midgard Serpent. ANSWER: |cat|s
(Tossup 3) This novel's protagonist uses colored electric lights and the fake incantation "BGWJJILLIGKKK" [bug-wuh-jill-ih-gik] to make his rival believe he is a magician while fixing a fountain. In a postscript to this novel written by (*) Clarence, Hank "The Boss" Morgan falls into a magical sleep after a sixth-century battle. FTP, name this novel by Mark Twain in which a nineteenth-century American goes back in time to compete with Merlin and fight the knights of the Round Table.

Answer: A Connecticut Yankee in King Arthur's Court
(Bonus 3)This novel follows the affairs of several families, including the Bolkonskys and the Rostovs, and describes Napoleon's 1812 invasion of Russia. FTPE,

Part 1: Name this extremely long Russian novel set between 1805 and the 1820s.
Answer: War and Peace (accept Voyna i mir)
Part 2: This Russian author wrote War and Peace and Sevastopol Sketches.
Answer: Leo Tolstoy (accept Lev Nikoleyevich Tolstoi)
Part 3: Tolstoy also wrote this novel, in which the title noblewoman throws herself under a train because she suspects her lover, Count Vronsky, is unfaithful to her.

## Answer: Anna Karenina

(Tossup 4) Cone-shaped hills called pingos form in regions containing this substance, which can be separated by a layer of ground called a talik. The mixing of layers within this substance is called cryoturbation, which occurs within the turbel portion of gelisols. (*) The discontinuous form of this type of soil thaws during the summer months. Ftp, name this ground layer that remains frozen year-round often found in the tundra.
ANSWER: |permafrost| (prompt on soil before mention)
(Bonus 4)These phenomena have zero amplitude at amphidromic points. For 10 points each: [10] Name these phenomena in which sea levels rise and fall periodically due to gravitational influences.
ANSWER: tides
[10] When the moon is at this phase, spring tides occur. This position of the lunar cycle is necessary for a solar eclipse.
ANSWER: new moon
[10] This type of tidal pattern recurs every once a day, unlike its "semi" type which recurs twice a day. The Gulf of Mexico primarily has this tidal pattern.
ANSWER: diurnal tides
(Tossup 5) In support of this position, Alvin Plantinga adapted 9th century Indian thinker Sankara's dictum "if something is impossible, we cannot have a perception." Saint Anselm of Canterbury posited the first ontological argument (*) in his 11th century work Discourse, which advocated this position. St. Thomas Aquinas published the "Five Ways," a series of logical
arguments to advocate this position. FTP, name this belief in a higher power common in monotheistic faiths.

Answer: existence of God [Accept Ontological Argument before mentioned]
(Bonus 5) In a lecture, this sociologist supported Snorri Surluson's Ynglinga Saga as literal truth, agreeing his Scandanavian ancestors migrated from Azerbaijan and other regions in the Caucuses. FTPE:
Part 1: Name this Norwegian ethnographer who crossed the Pacific Ocean with a six man crew on the Kon-Tiki raft, a replica of the balsa ships used by the Polynesians.
Answer: Thor Heyerdahl
Part 2:Attempting to prove the people of antiquity could reach the Americas, Heyerdahl traversed the Atlantic Ocean from Northwest Africa to Barbados in a craft named for this Egyptian Sun God.

## Answer: Ra

Part 3: Heyerdahl won the Mungo Park Award, an award named for a Scottishman and early explorer of Africa who died while charting the course of this river with a Berber derived name.
Answer: Niger River
(Tossup 6) Fourier series of odd functions only contain terms that are multiples of this function. On a unit circle, this function of the angle gives the $y$-coordinate of a point. The law of this function states that this function of any angle (*) over its corresponding side length is constant in a triangle. This function's reciprocal is the cosecant, and this two pi periodic function intersects the origin. For 10 points, name this trigonometric function whose derivative is cosine.

## ANSWER: sine

(Bonus 6)These numbers are used in an extension of complex numbers. For 10 points each: [10] Name this number system that uses $i, j$, and $k$, all of which square to negative one.

## ANSWER: quaternions

[10] William Rowan Hamilton was so excited to discover the quaternions that he carved ijk equals negative one on one of these structures named for William Broome. In another math problem, there are seven of these structures at Königsberg.
ANSWER: bridge
[10] The seven bridges of Königsberg could be considered the first theorem in this field of mathematics that concerns continuous deformations. Coffee cups and doughnuts are homeomorphic in this branch of math.
ANSWER: topology
(Tossup 7) Part of this structure is kept at the Main Street Station Casino Hotel, where it is placed behind the urinals in the men's room. Dmitri Vrubel graffitied the side of this structure with a painting of Leonid Brezhnev and Erich Honecker kissing. This (*) structure could be crossed at Checkpoint Charlie. Ronald Reagan urged Mikhail Gorbachev to "tear down" this structure. FTP, name this barrier that formerly split the capital of Germany.

Answer: Berlin Wall (accept Berliner Mauer)
(Bonus 7)Aristotle tutored this man, who became the ruler of Macedonia after the death of his father, Philip II. FTPE,

Part 1: Name this leader who defeated and conquered the Persian Empire in the 4th Century BC. Answer: Alexander the Great (or Alexander III of Macedon; prompt on Alexander)

Part 2: The ancient kingdom of Macedonia is in the northern part of this present-day country.
Answer: Greece
Part 3: Philip and Alexander made use of this military formation, in which heavy infantry fight in a square and wield spears and shields. It was the dominant formation of ancient Greek warfare.
Answer: phalanx
(Tossup 8) This kingdom gained independence from the Telmarines at the Second Battle of Beruna following the death of King Miraz. This kingdom's tenth king, Gale, was the first to be crowned "Emperor of the Lone Islands." This kingdom suffered (*) endless winters under the rule of Jadis, or the White Witch. Rulers of this kingdom include Caspian. FTP, name this kingdom ruled by the Pevensie children, which titles a chronicle by C.S. Lewis.

Answer: Narnia
(Bonus 8)The English Romantic poets often worked closely together to produce collections like Lyrical Ballads. FTPE,

Part 1: Lyrical Ballads is mostly by William Wordsworth, but it includes a long poem by Samuel Taylor Colerdige called the "Rime" of what "Ancient" character, who laments there is "water, water every where / nor every drop to drink."
Answer: the Ancient Mariner (accept The Rime of the Ancient Mariner)
Part 2: This married couple included the author of "My Last Duchess" and the poet whose "How Do I
Love Thee? Let Me Count the Ways" was collected in Sonnets from the Portuguese.
Answer: the Brownings (accept Robert and/or Elizabeth Barrett Browning)
Part 3: This poet wrote "To a Skylark" and "Ozymandias," and was the husband of an early science fiction author who wrote The Last Man and Frankenstein.
Answer: Percy Shelley (accept Percy Bysshe Shelley)

## Sixty-Second Round

The categories are...

1. Washington Irving
2. A Cellular Organelle
3. The Incan Empire

## A cellular organelle

The powerhouse of the cell is...
Part 1: a common name for what organelle?
Answer: mitochondria

Part 2: Mitochondria create which molecule, the energy currency for the cell?
Answer: ATP or adenosine triphosphate
Part 3: Which part of cellular respiration occurs in the mitochondrial matrix and starts with pyruvate?
Answer: Krebs cycle or citric acid cycle or tricarboxylic acid cycle or TCA cycle
Part 4: Mitochondria also release cytochrome C during which process of programmed cell death?
Answer: apoptosis

Part 5: What theory proposes that mitochondria were prokaryotic cells absorbed by other cells to form eukaryotes?
Answer: endosymbiotic theory or endosymbiosis or symbiogenesis

Part 6: Mitochondria generate heat in in the brown type of what tissue that stores fat?
Answer: adipose

## Washington Irving

Identify the following characters from the works of American author Washington Irving.
Part 1: The Revolutionary War ghost who haunts Sleepy Hollow.
Answer: Headless Horseman (accept the Galloping Hessian of the Hollow)
Part 2: The timid schoolteacher who is chased away by Sleepy Hollow's ghost.
Answer: Ichabod Crane (accept either underlined name)

Part 3: The Dutch colonist who sleeps for twenty years in the Catskill Mountains.
Answer: Rip Van Winkle (accept either underlined portion)
Part 4: The leader whose portrait vanishes from the local inn during the Dutch colonist's twenty-year nap.
Answer: King George III (prompt on "George" or "King George")

Part 5: The pen name under which Irving wrote a "Sketchbook" containing the aforementioned stories. Answer: Geoffrey Crayon (accept The Sketchbook of Geoffrey Crayon)

Part 6: The fictional historian who Irving claims discovered the stories of the "Sketchbook."
Answer: Diedrich Knickerbocker
Incan Empire

In the Incan Empire, who or what was theâ $€_{1}$
Part 1: European country that conquered the Incan Empire and Latin America?
Answer: Spain

Part 2: Explorer who conquered the Incans?
Answer: Francisco Pizarro

Part 3: Last Incan emperor who was captured by the explorer?
Answer: Atahualpa

Part 4: Ancient Incan city rediscovered by Hiram Bingham and written about by Pablo Neruda?
Answer: Machu Picchu

Part 5: Official language of the Incan Empire, which is not to be confused with the other Andean
language Aymara?
Answer: Quechua

Part 6: 1532 battle that captured the last Incan emperor?
Answer: Battle of Cajamarca

## Second Half

(Tossup 9) This president described his foreign policy as "peace through strength," an example of which was his ordering the bombing of Libya in response to an attack on a West Berlin nightclub. This president's namesake (*) doctrine sought to oppose Soviet aggression; during his presidency, the U.S. covertly backed right-leaning fighters in Nicaragua in the Iran-Contra Affair. FTP, name this conservative president whose first term began in 1981.

Answer: Ronald Reagan
Answer: Democratic-Republican (do not accept or prompt on Democrat or Republican)
(Bonus 9)
Part 1: Name this election year, in which a corrupt bargain saw John Quincy Adams defeat Jackson despite Jackson winning more electoral votes.
Answer: 1824
Part 2: The corrupt bargain resulted in this Speaker of the House being nominated as Secretary of State. This Kentucky politician was known as "the Great Compromiser."

## Answer: Henry Clay

Part 3: Adams was the last candidate to run on the ticket of this party, whose earlier Presidents include Thomas Jefferson and James Madison.
(Tossup 10) Relativistic beta is proportional to this vector quantity for an object. This quantity is crossed with the magnetic field in the formula for the Lorentz force. This quantity is constant in all inertial reference frames. An object's kinetic energy (*) equals half the mass times the square of this quantity. To leave orbit, objects much reach the "escape" form of, ftp, what quantity measured in meters per second?
ANSWER: |velocity| (prompt on speed)
(Bonus 10) These molecules can be made in "step-growth" and "chain-growth" reactions, ftpe. [10] Name these long molecules made of repeating identical subunits called monomers.
ANSWER: |polymer|s (accept |polymer|ization)
[10] One type of chain-growth polymerization extends a chain using these high-energy molecules that contain unpaired electrons.
ANSWER: free |radical|s
[10] A type of polymerization reaction called ROMP is driven by the opening of these structures in compounds. Steroids such as cholesterol have four "fused" examples of these structures.
ANSWER: |ring|s (accept |cycle|s; accept |ring| systems; accept |cyclic| compounds)
(Tossup 11) The Spanish Bodegon is an example of these types of paintings. In the Netherlands, banquet and breakfast scenes were shown in these paintings, and they often included an object such as a skull that symbolizes the brevity of life. (*) Paul Cezanne's several examples of these paintings show baskets of apples. Flowers and food are popular subjects in, ftp, what paintings of inanimate objects with a two-word name?

Answer: still lifes
(Bonus 11)A group of people stand before a firing squad in this artist's painting The Third of May 1808, which protested the French occupation of his home country. FTPE,

Part 1: Name this artist who also produced clothed and nude versions of a low-class Maja woman whose exact identity remains unknown to this day.
Answer: Francisco de Goya

Part 2: Two Old Men Eating Soup and Saturn Devouring His Children are among this set of fourteen bleak murals by Goya that he created for his personal residence, the Quinta del Sordo or House of the Deaf Man.
Answer: Black Paintings
Part 3: Goya was from this European country. The earlier painter El Greco primarily worked in this non-Greek country.
Answer: Spain
(Tossup 12) This author retold King Arthur legends using a group of Paisanos led by Danny in his novel Tortilla Flat. This author wrote about the Hamilton and Trask families in his retelling of the Cain and Abel story, ( ${ }^{*}$ ) East of Eden. Another of this author's novels follows the Joad family as they travel to California during the Dust Bowl. FTP, name this american author of The Grapes of Wrath.

Answer: John Steinbeck
(Bonus 12)In this book's first section, "Economy," its narrator states "I lived alone, in the woods, a mile from any neighbor, in a house which I had built myself" for "two years and two months." FTPE,

Part 1: "Solitude" and "Higher Laws" are other parts of what book first published in 1854?
Answer: Walden; or, Life in the Woods
Part 2: This transcendentalist author told of his time living on an isolated plot of land owned by his friend Ralph Waldo Emerson in Walden.
Answer: Henry David Thoreau
Part 3: Walden Pond is located near this town in Massachusetts. Emerson said that "the embattled farmers stood / And fired the shot heard round the world" in a poetic "Hymn" named for this place. Answer: Concord (accept Concord Hymn)
(Tossup 13) The first governor of this state, Jonathan Jennings, successfully negotiated the Treaty of Saint Mary with the Wyandot that opened the central portion of this state to white settlement. "Mad" Anthony (*) Wayne defeated a confederacy of Shawnee and Miami at the Battle of Fallen Timbers in this state. Both Benjamin Harrison and current Vice President Mike Pence hailed from this state. FTP, name this Midwestern US state with capital at Indianapolis.

Answer: Indiana
(Bonus 13) Some people have taken to turning these locales into pizza ovens, restaurants or

Part 1: Name these hemispheric fixtures of which 700,000 were built during the communist dictatorship of Enver Hoxha. Hitler committed suicide in a different location of this type in Berlin.
ANSWER: Bunkers
Part 2: Hoxha built those bunkers in this Balkan nation, with many still found in the streets of Durres and Tirana.
Answer: Republic of Albania
Part 3 In 2020, Albania and Greece solved a long standing maritime dispute in this sea after an October summit.
Answer: Ionian Sea [prompt on "Mediterranean Sea"]
(Tossup 14) One member of this kingdom that infects rye plants produces alkaloids that can induce severe hallucinations in humans if eaten. Lichens are composed of a cyanobacteria or algae and a member of this ( ${ }^{*}$ ) kingdom. Puffballs are a member of this kingdom that produce spores to reproduce. FTP, name this eukaryotic kingdom that includes yeast, mold, and mushrooms.

Answer: fungi (or fungus)
(Bonus 14) Flippases, floppases, and scramblases switch around molecules within this structure, ftpe.
[10] Name this semi-permeable organelle that surrounds the cytoplasm of a cell.
ANSWER: |cell membrane| (accept |plasma membrane|; prompt on membrane)
[10] The cell membrane is made of a bilayer of these amphipathic molecules which contain two fatty acid "tails" with a phosphate and glycerol "head" group.
ANSWER: |phospholipid|s (prompt on lipids)
[10] The long fatty acid "tails" of phospholipids have this property, which is why they orient towards the inside of the membrane to avoid the water-filled external environment.
ANSWER: |hydrophobic|ity (accept |lipophilic|ity; prompt on nonpolar; prompt on organic)
(Tossup 15) The Jain version of this holiday celebrates Mahavira's achievement of Nirvana and his passing of power to Gautama Swami. Oil lamps named diyas are often hung around the house in preparation for this holiday, and sometimes adherents worship Lakshmi in traditional ceremonies to bring good luck to a family. (*) In Gujarat and some other more isolated communities, this holiday represents the beginning of a New Year, FTP, name this "Festival of Lights," a Hindu holiday celebrated in fall.

## Answer: Diwali [Accept Divali or Deepavali]

(Bonus 15)This speech introduces the phrase "salt of the Earth". For ten points each, [10] Name this speech that contains the Lord's Prayer. This lengthy speech given by Jesus Christ is the first of the Five Discourses of Matthew.

## ANSWER: |Sermon on the Mount|

[10] The Sermon on the Mount was delivered near the Sea of Galilee, a lake in this modern-day country. This country contains Tel Aviv, and it disputes Jerusalem with Palestine.
ANSWER: |Israel|
[10] The Sermon on the Mount contains this set of eight blessings. One of these blessings reads "Blessed are the meek, for they will inherit the Earth".
ANSWER: the |Beatitudes|
(Tossup 16) Protests against this country's prime minister Thaksin Shinawatra resulted in the People's Alliance for Democracy seizing the Suvarnabhumi airport. The Phibun led government of this country surrendered to Japan in only 5 hours during World War II. (*) This country is the only southeast Asian nation to never fall under European colonization. FTP, name this country ruled by the Chakri dynasty, which was formerly known as Siam.

Answer: Thailand (or Siam before read)
(Bonus 16)This event forced Robert Peel to repeal the Corn Laws. For ten points each:
Part 1: Name this event in which a namesake crop's failure caused widespread hunger. Answer: Irish Potato Famine

Part 2: The Corn Laws imposed this kind of tax on imported grain. In the US, a controversy over one of these taxes caused the Nullification Crisis.
Answer: Tariff
Part 3: Robert Peel went against most of this party, his own party, when he repealed the Corn Laws. Later Prime Ministers from this party have included John Major and David Cameron. Answer: Conservative Party (accept Tory or Tories)

## Tiebreaker

(Tossup 17) This philosopher proposed a thought experiment involving a man observing a ball of wax in a work arguing for the mind and body being separate. This philosopher imagined an "evil demon" deceiving him in a work that (*) proposes his namesake "dualism," in which he doubts almost everything, leading to his most famous quote. FTP, Discourse on Method is the source of which French philosopher's quote "I think, therefore I am?"
Answer: Rene Descartes
(Bonus 17) Force Publique officer Léon Rom supposedly served as the inspiration for an Ivory trader in this novella. For ten points each:
Part 1: Name this novella where a woman claims her fiancée's last words were her name instead of what they actually were, "The horror! The horror!"
Answer: Heart of Darkness

Part 2: Heart of Darkness is by this British writer that emigrated from Poland. He also wrote Lord Jim and The Secret Agent.
Answer: Joseph Conrad
Part 3: This author dismantled the racist themes present in Heart of Darkness in the lecture, An Image of Africa.
Answer: Chinua Achebe

