

# Round 8

## First Half

(Tossup 1) **In this country, the Truth and Reconciliation Commission investigated human rights abuse under the leadership of Desmond Tutu. A future leader of this country declared “I am prepared to die” near the end of the (\*) Rivonia Trial. That man, who had earlier co-founded the “Spear of the Nation,” was imprisoned on Robben Island for 18 years. For ten points, name this country where Nelson Mandela fought against apartheid.**

ANSWER: South Africa (accept Republic of South Africa; accept RSA)

(Bonus 1) The Embargo Act of 1807 was passed in the prelude of this conflict. For ten points each,

[Part A] Name this war between the United States and the United Kingdom that included the burning of Washington, D.C.

ANSWER: War of 1812

[Part B] During the War of 1812, this young officer was captured at the Battle of Queenston Heights. This man, labeled “Old Fuss and Feathers” would later develop the Anaconda Plan during the opening phase of the Civil War.

ANSWER: Winfield Scott

[Part C] Despite struggling on land, the United States decidedly won this 1813 naval battle. In the aftermath of this battle, Oliver Hazard Perry sent out the message “we have met the enemy and they are ours.”

ANSWER: Battle of Lake Erie (accept Battle of Put-in-Bay)

(Tossup 2) **This Greek god tricked Agave into murdering Pentheus by making her believe Pentheus was a wild lion. This god’s female followers were called the Maenads, and he carried a pine-cone-topped thyrsus staff. This god’s father appeared to (\*) Semele in his full glory, killing her; he then sewed this infant god into his thigh, making this god “twice-born.” For ten points, name this Greek god of divine inspiration and wine.**

ANSWER: Dionysus

(Bonus 2) Avalokiteshvara [ah-vah-loh-kee-tesh-vah-rah] is one of these figures, and is known in China as the god of compassion, Guanyin. For ten points each,

[Part A] Name these benevolent figures from Buddhism, who choose to remain on Earth to help guide others toward Buddhahood.

ANSWER: bodhisattvas

[Part B] Bodhisattvas remain on Earth despite having achieved this status, a higher state of being that allows humanity to escape from the cycle of samsara. The Buddha meditated under the Bodhi tree to reach this transcendent state.

ANSWER: enlightenment (accept word forms like enlightened)

[Part C] Bodhisattvas are venerated in this major denomination of Buddhism. This denomination is named for a “great cart” that can pull all sentient beings to enlightenment together, as opposed to the Theravada school.

ANSWER: Mahayana

(Tossup 3) **The title character of a novel-length poem from this country flirts with Olga at a name-day celebration and then kills her fiancé, Lensky, in a duel. In a poem from this country, Parasha dies in a flood, and her lover curses a statue next to the (\*) Neva River that comes to life and pursues him to his death. “Eugene Onegin” is by a poet from this country, Alexander Pushkin. For ten points, name this country where “The Bronze Horseman” is set in Saint Petersburg.**

ANSWER: Russia

(Bonus 3) This woman said that “If ever two were one, then surely we” in her poem “To My Dear and Loving Husband.” For ten points each,

[Part A] Name this Puritan poet who wrote a poem upon the destruction of her house in a fire in 1666.

ANSWER: Anne Bradstreet

[Part B] Bradstreet’s only collection published in her lifetime called her the “Tenth” of these mythical figures. Calliope and Erato were two of these nine Greek goddesses of artistic inspiration.

ANSWER: muses (accept but do not otherwise reveal The Tenth Muse Lately Sprung Up in America)

[Part C] Bradstreet is among the earliest published authors to live and work in the colonial period of this country’s history.

ANSWER: United States of America (accept either underlined portion; accept USA)

(Tossup 4) **While dissolved in ammonia, this metal removes double bond from benzene as part of the Birch reduction. The hydroxide of this metal is used to make soap and is known as (\*) lye. This metal gives bright yellow color in a flame test. This metal is exchanged with potassium in a protein pump. For ten points, name this metallic element that bonds to chloride to form table salt.**

ANSWER: sodium (accept Na)

(Bonus 4) The two highest of these structures are named the atlas and the axis. For ten points each,

[Part A] Name these bones which make up the spinal column.

ANSWER: vertebrae

[Part B] The ribs are attached to this portion of the spinal column found between the cervical spine and the lumbar spine.

ANSWER: thoracic spine

[Part C] There are this many thoracic vertebrae: it is also the number of pairs of ribs in the ribcage.

ANSWER: 12

(Tossup 5) **This man stated that “facts are stubborn things” in defense of the soldiers accused of committing the Boston Massacre. The Alien and Sedition Acts were signed into law by this President. The unpopularity of those acts contributed to this (\*)** Federalist politician’s defeat in the Election of 1800. Thomas Jefferson succeeded, for ten points, what 2nd President of the United States whose son also became President?

ANSWER: John Adams (prompt on Adams; do not accept John Quincy Adams)

(Bonus 5) Members of this civilization composed the original version of the Varangian Guard. For ten points each,

[Part A] Name this Scandinavian civilization if sea-farers that often raided European settlements in their longships. Contrary to popular belief, warriors in this civilization rarely, if ever, wore horned helmets.

ANSWER: Vikings (accept Norse)

[Part B] Possibly the most famous Viking is this son of the founder of Greenland. This man possibly established a Viking colony in Newfoundland.

ANSWER: Leif Erikson

[Part C] Leif Erikson possibly established this colony in Canada which likely contained L’Anse aux Meadows. The name for this colony takes its name from grapes found in Newfoundland.

ANSWER: Vinland (accept Vineland; accept Winland)

(Tossup 6) **One player of this instrument recorded the best selling jazz album of all time, *The Köln Concert*. In addition to Keith Jarrett, this instrument was also played by a musician who recorded (\*)** *Brilliant Corners*, Thelonius Monk. Another player of this instrument played the songs “In a Sentimental Mood” and “Take the A Train.” For ten points, name this instrument played by Duke Ellington.

ANSWER: piano

(Bonus 6) A piece with this Italian word in its title was played after the sudden death of John F. Kennedy and has been called the “saddest piece of music ever written.” For ten points each,

[Part A] Name this tempo marking whose Italian name means “slowly.” This tempo marking typically indicates a little more than 60 beats per minute, faster than *largo*.

ANSWER: adagio

[Part B] This American composer wrote two Pulitzer Prize-winning works but is best known for his *Adagio for Strings*.

ANSWER: Samuel Barber

[Part C] The *Adagio for Strings* is in this type of key, in which the half-step interval from notes 2 to 3 and 5 to 6 typically sounds more serious and sad than a major key, where the half-steps are from 3 to 4 and 7 to 8.

ANSWER: minor key

(Tossup 7) **This philosopher argued that men must learn “amor fati,” or love of their fate in his book *The Gay Science*. This philosopher criticized Christian morality in books such as (\*) *On the Genealogy of Morals* and *Beyond Good and Evil*. In his most famous book, this philosopher described the ubermensch. For ten points, name this German philosopher who declared “God is dead” in *Thus Spake Zarathustra*.**

ANSWER: Friedrich Nietzsche

(Bonus 7) This book compares fortune to a woman who must be overcome to achieve success. For ten points each,

[Part A] Name this book, a work of political philosophy that instructs the title people that it is better to be “feared than loved.” This book praised Cesare Borgia and is dedicated to Lorenzo de Medici.

ANSWER: The Prince (accept Il Principe)

[Part B] *The Prince* was written by this philosopher. This philosopher also wrote *The Mandrake* and *Discourses on Livy*.

ANSWER: Nicolo Machiavelli

[Part C] Nicolo Machiavelli was an inhabitant of this modern day country. This country’s cities of Florence and Rome were extremely influential on the early Renaissance.

ANSWER: Italy (accept Italia)

(Tossup 8) **The parasite responsible for malaria attacks these cells. A mutation to a protein found in these cells causes them to take on a “sickle” shape, giving rise to a type of (\*) anemia.** These cells lack a nucleus and are produced in the bone marrow. These cells get their namesake color from a protein that contains iron. For ten points, name these hemoglobin containing cells that transport oxygen through the body.

ANSWER: red blood cells (accept erythrocytes; prompt on blood cells; do not accept or prompt on white blood cells)

(Bonus 8) Answer some questions about artificial satellite orbiting the Earth. For ten points each,

[Part A] This was the first artificial satellite launched around earth. This satellite was launched by the Soviet Union and was the start of the space race.

ANSWER: Sputnik I

[Part B] This space station is a joint effort by Russia, the US, the EU, Japan, and Canada. This space station holds the record for the longest continually inhabited low orbit satellite in history.

ANSWER: International Space Station (or ISS)

[Part C] this space telescope was launched in 1990 along the Discovery Shuttle. This telescope is named for an American astronomer who proved the expansion of the universe.

ANSWER: Hubble Space Telescope

## Sixty-Second Rounds

The categories are ...

1. Hamlet
2. Russian Tsars
3. Black Holes

## HAMLET

Name the...

(1) English playwright who wrote *Hamlet*.

ANSWER: William **Shakespeare**

(2) Substance that King Claudius uses to kill Hamlet's father, the former king.

ANSWER: **poison** (accept ear **poison**)

(3) Setting of *Hamlet*, a northern European country where Hamlet is a prince.

ANSWER: **Denmark**

(4) Six-word phrase that precedes "that is the question" and that opens a speech by Hamlet in which he contemplates suicide.

ANSWER: **To be, or not to be**, that is the question

(5) Daughter of Polonius who commits suicide when Hamlet doesn't return her love.

ANSWER: **Ophelia**

(6) Object once belonging to the jester Yorick that Hamlet holds while mourning "a fellow of infinite jest."

ANSWER: Yorick's **skull** (prompt on bones or corpse)

## RUSSIAN TSARS

Name the Tsar or Tsarina that...

(1) Ordered the Massacre of Novgorod and likely killed his son as part of a lengthy reign marked by cruelty.

ANSWER: Ivan IV Vasilyevich (accept Ivan the Terrible; accept Ivan the Formidable; accept Ivan the Fearsome; accept Ivan Grozny; prompt on Ivan)

(2) Carried out the Grand Embassy and founded a namesake city on the Baltic Sea in an attempt to westernize Russia.

ANSWER: Peter I; (accept Peter the Great; accept Peter Alexeyevich; prompt on Peter)

(3) Overthrew her husband Peter III and oversaw multiple partitions of Poland.

ANSWER: Catherine II (accept Catherine the Great; accept Sophie of Anhalt-Zerbst; prompt on Catherine)

(4) Emancipated the Serfs in 1861 and that was assassinated by the People's Will.

ANSWER: Alexander II (accept Alexnader the Liberator; accept Alexander II Nikolayevich)

(5) Ended the Time of Troubles and established the Romanov dynasty.

ANSWER: Michael I of Russia

(6) Ascended to the throne after the death of Feodor I and likely ordered the death of Dmitry of Uglich.

ANSWER: Boris Fyodorovich Godunov

## BLACK HOLES

Name the...

(1) Phenomenon that attracts massive objects; in a black hole, this interaction is strong enough to attract light.

ANSWER: gravity (accept word forms, like gravitation)

(2) German physicist whose theory of general relativity predicts the existence of black holes.

ANSWER: Albert Einstein

(3) Black hole theorist and author of *A Brief History of Time* who died of ALS in 2018.

ANSWER: Stephen Hawking

(4) Boundary within which information cannot escape the pull of a black hole.

ANSWER: event horizon

(5) Galaxy where Sagittarius A\* ["A star"] is the site of a supermassive black hole.

ANSWER: Milky Way

(6) Theorem that states black holes can be characterized by just their mass, charge, and spin.

ANSWER: no-hair theorem



## Second Half

(Tossup 9) **An expected value is typically equivalent to one of these values, and two of these values are compared in the AM-GM inequality. The geometric type of this quantity is equal to the  $n$ th root of the product of  $n$  numbers, and the (\*) arithmetic type of this quantity equals the sum of  $n$  numbers divided by  $n$ .** For ten points, name this type of statistic that describes the center of a set of numbers by finding an average.

ANSWER: means (accept arithmetic mean or geometric mean; prompt on “average”)

(Bonus 9) This man names a common quadrature method for approximating the area under a curve and developed a discrete Fourier transform algorithm 160 years before Cooley and Tukey. For ten points each,

[Part A] Name this prolific German mathematician. A common story states that as a child he foiled a lazy math teacher by quickly adding the numbers 1 through 100.

ANSWER: Johann Carl Friedrich Gauss

[Part B] Gauss sometimes names the method of row reduction used to simplify these arrays of numbers used in linear algebra. They can be used to represent transformations or systems or equations.

ANSWER: matrix or matrices

[Part C] Gauss also names this statistical distribution which forms a characteristic “bell curve”.

ANSWER: normal distribution

(Tossup 10) **In a novel by this writer, the protagonist attends the Jesuit-run Clongowes College, where a group of boys led by Wells throw Stephen Daedalus into a ditch. In another novel by this author, (\*) Leopold Bloom stands in for a journeying Greek hero as he travels through Dublin.** For ten points, name this Irish author of *A Portrait of the Artist as a Young Man* and *Ulysses*.

ANSWER: James Augustine Aloysius Joyce

(Bonus 10) The title character of a play by this author is visited by Io and Hermes while chained to a rock. For ten points each,

[Part A] Name this playwright of *Prometheus Bound*, and ancient tragedian who wrote about a man who seeks vengeance for his father’s murder by slaying his mother and her lover in the *Oresteia*.

ANSWER: Aeschylus

[Part B] In the *Oresteia*, Agamemnon returns to Mycenae after having claimed victory in this war, which lasted for ten years.

ANSWER: Trojan War

[Part C] Aeschylus, like Euripides, was a playwright who wrote in this language. Plays written in this language were entered in the City Dionysia, a drama competition held in Athens.

ANSWER: Ancient Greek

(Tossup 11) **This ruler funded the creation of a minuscule script to make the Vulgate Bible easier to read. That script was created by Alcuin of York who, at this ruler's invitation, became a teacher in (\*) Aachen. Einhard created a biography of this ruler that detailed his coronation as Emperor of the Romans by Leo III on Christmas Day. For ten points, name this King of the Frank who founded the Carolingian Empire.**

ANSWER: Charlemagne (accept Charles the Great; accept Charles I; prompt on Charles alone)

(Bonus 11) This empire was founded by Sundiata Keita who led the conquest of the Sosso Kingdom. For ten points each,

[Part A] Name this West African Empire that came to power during the decline of Ghana. A ruler of this empire transformed it into an economic juggernaut in part by heavily taxing trade at Timbuktu.

ANSWER: Mali Empire

[Part B] The economic transformation of the Mali Empire was spearheaded by this leader who succeeded Abu Bakr II [the second]. This 10th Mansa of the Mali Empire nearly crashed the Egyptian economy while travelling to Mecca.

ANSWER: Mansa Musa I

[Part C] Musa I [the first] devalued the price of this commodity while on the Hajj by giving away vast sums of it.

ANSWER: gold

(Tossup 12) **A cross-section of twelfth-century life in this country appears in *Along the River*. This country was the home of Four Great Masters whose landscapes rebelled against the Mongols, and of tomb figures of horses that spread via the (\*) Silk Road. This country became known for blue and white porcelain ceramics during the reign of the Yongle and Xuande emperors. For ten points, name this large east Asian country in which art flourished during the Tang and Ming dynasties.**

ANSWER: China (accept Zhongguo)

(Bonus 12) This artist's New York Skyscrapers series includes a famous painting of the Radiator Building. For ten points each,

[Part A] Name this artist of paintings of skulls and flowers such as *Cow's Skull: Red, White, and Blue* and *Ram's Head White Hollyhock and Little Hills*.

ANSWER: Georgia O'Keeffe

[Part B] O'Keeffe was married to this American photographer, who took photos such as *Winter-Fifth Avenue* and *The Steerage*.

ANSWER: Alfred Stieglitz

[Part C] O'Keeffe and Stieglitz were both from this country. This country was also home to Andy Warhol's Factory studio in New York.

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

(Tossup 13) **The speaker of a poem by this author states that “We have lingered in the chambers of the sea... / till human voices wake us, and we drown” and describes a room in which “the women come and go / talking of Michelangelo.” A long poem by this man opens with the line (\*) “April is the cruelest month.” For ten points, name this American-British poet of “The Love Song of J. Alfred Prufrock” and a poem titled for a desolate location from Arthurian myth, “The Waste Land.”**

ANSWER: T.S. Eliot (or Thomas Stearns Eliot)

(Bonus 13) A poem by this author describes “An ecstasy of fumbling / Fitting the clumsy helmets just in time, / But someone still was yelling out and stumbling / And flound’ring like a man in fire or lime.” For ten points each,

[Part A] Name this poet of “Dulce et Decorum Est” and “Anthem for Doomed Youth.”

ANSWER: Wilfred Owen

[Part B] “Dulce et Decorum Est” takes its title from one of Horace’s *Odes*, which were originally written in this ancient language.

ANSWER: Latin

[Part C] Wilfred Owen’s poetry was heavily influenced by this war. Tragically, Owen died on November 4, 1918, just one week before the signing of the armistice that ended this war.

ANSWER: World War I (or the First World War; accept the Great War)

(Tossup 14) **This island’s native Lenape called it Kioshk, which means Gull Island. In the case *New Jersey v. New York*, the Supreme Court ruled that this island’s original land belonged to (\*) New York but the reclaimed land belonged to New Jersey. Ferries to this island leave from the Battery and Liberty State Park. For ten points, name this island near the Statue of Liberty, where immigrants entered the United States.**

ANSWER: Ellis Island

(Bonus 14) This province's western portion is home to Banff National Park, which lies along the Rocky Mountains. For ten points each,

[Part A] Name this Canadian province with capital Edmonton. This province, whose largest city is Calgary, borders the U.S. state of Montana to the south.

ANSWER: Alberta

[Part B] This river originates in Jasper National Park along the Alberta-British Columbia border before flowing into a namesake lake on the border of Alberta and Saskatchewan.

ANSWER: Athabasca River

[Part C] The Athabasca River lends its name to a type of tar sands that are a major source of this commodity. This commodity is chiefly produced by the member states of OPEC such as Saudi Arabia and Venezuela.

ANSWER: crude oil (or petroleum; prompt on fossil fuels)

(Tossup 15) **In 2002, Pope John Paul II added the Luminous Mysteries to the contemplations required during this set of prayers, whose origin is attributed to the 13th-century Saint Dominic. The “Glory Be” and the (\*) “Lord’s Prayer” divide these prayers’ decades, sets of ten recitations of the “Hail Mary.”** For ten points, give the name shared by a set of Catholic prayers and the string of prayer beads used to count them.

ANSWER: Dominican Rosary (accept rosarium)

(Bonus 15) This goddess's realm was the resting place for all humans who died outside of battle. For ten points each,

[Part A] Name this daughter of Loki from Norse myth, a half-dead woman who rules a namesake underworld.

ANSWER: Hela (accept Helheim)

[Part B] Hela and the dishonorable dead are destined to march alongside Loki against the Norse gods at this final battle of the current age, during which the world will be destroyed and remade.

ANSWER: Ragnarök

[Part C] Loki will also be accompanied at Ragnarök by these mythical creatures. Loki's wife, Angrboda, was one of these creatures, and Loki himself is sometimes described as being the son of Laufey, another of these creatures.

ANSWER: frost giants (accept Jötunn; accept Jötnar)

(Tossup 16) **The “zombie effect” occurs when these objects are washed into a different location from where they originated. The cast form of these objects formed in soft sands and muds. Mismatches in these objects occurred during the (\*) bone wars, which has led to controversy about the existence of the brontosaurus. For ten points, name these preserved remains of living plants and animals.**

ANSWER: fossils

(Bonus 16) These devices work using dielectric heating. For ten points each,

[Part A] Name these devices which use low energy radiation to heat food.

ANSWER: microwave ovens or microwaves

[Part B] Unlike food cooked in a conventional oven, microwaved food does not brown because it does not undergo caramelization, or this other reaction.

ANSWER: Maillard reaction

[Part C] A variety of oven containing fans is named for this form of heat transport which differs from conduction and radiation.

ANSWER: convection

## Tiebreakers

(Tossup 17) **These devices fail above the Curie temperature. Lodestones are a natural form of these devices. These devices are frequently made out of annealed iron and their strength is measured in namesake moments. The (\*) electro form of these devices use coiled copper wires to create these devices namesake fields. For ten points, name these devices that have north and south fields and which point north in compasses.**

ANSWER: magnets (accept word forms like magnetism)

(Bonus 17) In one book, this philosopher described the “teleological suspension of the ethical” as an explanation for how a certain man could sacrifice his son without sinning. For ten points each,

[Part A] Name this Christian philosopher and theologian who authored books such as *Fear and Trembling* and *Either/Or*.

ANSWER: Soren Kierkegaard

[Part B] In *Fear and Trembling* Kierkegaard referred to this Biblical figure as a “knight of faith” for his willingness to sacrifice Isaac on Mt. Moriah.

ANSWER: Abraham

[Part C] Kierkegaard is widely considered to be a forerunner of the existential movement, which was most famously promoted by this French author of *Being and Nothingness*. This author also wrote the play *No Exit*.

ANSWER: Jean-Paul Sartre