

Round 9

First Half

(Tossup 1) **One artist from this country showed Rubens paintings in the background of a work that showed a girl stepping over a dog. Another artist from this country created the *Black Paintings* series, which includes (*) *Saturn Devouring His Son*. This country is also home to the artist of *Guernica*. For ten points, name this home country of Diego Velazquez, Francisco Goya, and Pablo Picasso.**

ANSWER: Spain (or España)

(Bonus 1) This piece in a ragtime style mocks Richard Wagner's Tristan chord and is named for a competitive dance with a dessert prize. For ten points each,

[Part A] Name this final movement of the *Children's Corner* suite, which was written for the composer's young daughter Claude-Emma.

ANSWER: Golliwog's Cakewalk

[Part B] "Golliwog's Cakewalk," as well as *Prelude to the Afternoon of a Faun*, was composed by this Frenchman, who would hate how often his works are described as "Impressionist" today.

ANSWER: (Achille-)Claude Debussy

[Part C] Debussy's most famous piece is this work, the third movement of his *Suite Bergamasque*. Debussy originally wrote this piece for piano, but several composers have arranged it for full orchestra.

ANSWER: Clair de Lune

(Tossup 2) **The Tully-Fisher relation relates the luminosity and velocity of these objects. The rotation of these objects is believed to be preserved with density waves. These objects occupy rightmost section of the (*) Hubble Tuning fork. When crossed with a stripe of stars, these objects are called "Barred." For ten points, name these galaxies that are not elliptical or irregular and include the Milky Way.**

ANSWER: spiral galaxies (accept barred spiral galaxies; prompt on galaxies)

(Bonus 2) These chemical species may be formed as a result of homolytic cleavage of a bond. For ten points each,

[Part A] Name these extremely reactive species defined as possessing an unpaired electron.

ANSWER: free radicals

[Part B] In the human body, this general class of substances helps impede the action of radicals. Vitamin C and flavonoids act as these substances.

ANSWER: antioxidants

[Part C] Denham Harman proposed that this process occurs due to damage from free radicals. This process occurs prematurely in progeria, and is also known as senescence.

ANSWER: aging

(Tossup 3) **Lake Cahuilla was a former lake created by shifts in this river's flow, which also created the Algodones Dunes. More recent overflows in this river have created the Salton Sea. Lake (*) Powell is formed by this river at the Glen Canyon Dam. This river's confluence with the Virgin River forms Lake Mead, which is held back by the Hoover Dam. For ten points, name this river that flows through the Grand Canyon.**

ANSWER: Colorado River

(Bonus 3) While under British rule, this country's capital was Mandalay. For ten points each,

[Part A] Name this country whose current capital is Naypyidaw. This country's Chindwin River forms a massive delta along the Andaman Sea.

ANSWER: Myanmar (or Burma)

[Part B] This river is Myanmar's most important river. This river is formed at the confluence of the Mali and N'Mai Rivers.

ANSWER: Irrawaddy

[Part C] Along with Myanmar and Malaysia, this other country controls the Malay Peninsula. This country is governed by the Chakri Dynasty from the city of Bangkok.

ANSWER: Thailand

(Tossup 4) **Mutually tangent examples of these shapes form the Apollonian gasket. Two of these shapes can be used to draw a cycloid. The "power of a point" describes a point's distance from one of these shapes, which have eccentricity zero. The ancient problem of constructing a (*) square with an equal area to one of these shapes was proven impossible when it was shown pi was irrational. For ten points, name these shapes that can be described by just the position of their center and length of their radius.**

ANSWER: circles

(Bonus 4) The power rule and the chain rule may be used when calculating one of these things for a function. For ten points each,

[Part A] Name this tool in calculus which calculates an expression for a function's slope at any point. The fundamental theorem of calculus states that this operation is the opposite of integration.

ANSWER: derivative (accept differentiation)

[Part B] For a polynomial, taking its derivative results in a polynomial lowers its order by one. As a result, taking the derivative of a quadratic polynomial results in this kind of polynomial.

ANSWER: linear (accept degree one or first order)

[Part C] Taking the derivative of a horizontal line results in this value because the derivative gives the horizontal line's slope.

ANSWER: 0

(Tossup 5) **After this character's death, her daughter Berthe is sent to work in a cotton mill and her husband's practice is taken over by Homais [oh-may]. This woman has affairs with Léon Dupuis and Rodolphe Boulanger and gambles to escape the boredom of being married to a doctor named (*) Charles, but the pressure of her debts drives her to commit suicide by taking arsenic. For ten points, name this title woman from a novel by Gustave Flaubert [goo-stahv floh-bayr].**

ANSWER: Emma Bovary (accept either underlined portion; accept Madame Bovary)

(Bonus 5) With Robert Sherwood, this author is one of only two men to receive three Pulitzer Prizes for Drama, for his plays *A Delicate Balance*, *Seascape*, and *Three Tall Women*. For ten points each,

[Part A] Name this American playwright. In another play by this man, Nick and Honey attend a party hosted by George and Martha, who have an imaginary son.

ANSWER: Edward Albee

[Part B] Nick, Honey, George, and Martha appear in an Albee play titled *Who's Afraid of* this female author. This British author of the novel *Mrs Dalloway* committed suicide in 1941.

ANSWER: (Adeline) Virginia Woolf

[Part C] Another Edward Albee play is named for one of these places in Central Park. In the play, Jerry describes going to this location to find out about "the way people exist with animals" kept in cages.

ANSWER: zoo (accept The Zoo Story; accept At Home at the Zoo; accept Central Park Zoo)

(Tossup 6) **During this case, Robert Cooper Grier was pressured by the President to agree with the majority opinion. Benjamin Curtis decried the ruling of this case as "more a matter of taste than law" in his dissent. Roger (*) Taney ruled that black people are not entitled to constitutional rights in, for ten points, what 1857 case in which a man argued that time spent in Wisconsin and Missouri entitled him to freedom?**

ANSWER: Dred Scott v. Sandford

(Bonus 6) This country was invaded by neighboring Egypt as part of the Yom Kippur War in 1973. For ten points each,

[Part A] Name this Jewish state that has controversially claimed Jerusalem as its capital.

ANSWER: Israel

[Part B] Prior to the Yom Kippur War, Israel started this 1967 conflict by bombing Egyptian airfields. During this war, David Rubinger took a picture of Israeli paratroopers at the Western Wall.

ANSWER: Six-Day War (accept Third Arab-Israeli War)

[Part C] The Six-Day War was launched in response to Egypt closing these waterways to Israeli shipping. In 1957, the Israeli government declared that denying them access to these straits would constitute a declaration of war.

ANSWER: Straits of Tiran (accept Madiq Tiran)

(Tossup 7) **Amantine Lucile Dupin took this *first* name as her pseudonym, along with the last name “Sand.” An author who used this first pen name wrote about the Tulliver siblings, who die in a flood at the end of *The* (*) *Mill on the Floss*, and also wrote *Middlemarch*. Mary Ann Evans wrote under this first name and the last name “Eliot.” For ten points, give this first pen name shared by the author of *1984* surnamed Orwell.**

ANSWER: George (accept George Sand or George Eliot or George Orwell)

(Bonus 7) This poem describes a sculpture “whose frown, / And wrinkled lip, and sneer of cold command, / Tell that its sculptor well those passions read / Which yet survive.” For ten points each,

[Part A] Name this 1818 poem in which a traveler describes how “Two vast and trunkless legs of stone” that “stand in the desert.”

ANSWER: Ozymandias

[Part B] This British Romantic poet and husband of fellow writer Mary wrote “Ozymandias” as well as “Ode to the West Wind.”

ANSWER: Percy Bysshe Shelley (prompt on Shelley)

[Part C] Shelley wrote *Adonais* as an elegy for this other poet. This man wrote that “beauty is truth, truth beauty” in his “Ode on a Grecian Urn.”

ANSWER: John Keats

(Tossup 8) **In compensation for Hera blinding Tiresias, Zeus gave him long life and this skill. This action was ritually performed by a priestess called a Pythia, who sat on a three-footed stool perched over a toxic vent in a cave near (*) Delphi. Cassandra was cursed to be able to do this accurately but not be believed after she rejected the god of this skill, Apollo. For ten points, name this power of seeing the future.**

ANSWER: prophecy (accept word forms like prophesying; accept clear equivalents like seers or oracles; accept descriptions like seeing the future before it is read)

(Bonus 8) These places of worship include a palki to house the holy text the Adi Granth. For ten points each,

[Part A] Name these places of worship in Sikhism, exemplified by one in Amritsar.

ANSWER: gurdwaras (accept Sikh temples; prompt on temple)

[Part B] Gurdwaras contain langars, community-oriented rooms of this type, which distribute vegetarian meals for free.

ANSWER: kitchens

[Part C] The Sikh temple in Amritsar is nicknamed for this precious metal, which decorates the interior and exterior walls of the temple.

ANSWER: gold (accept Golden Temple of Amritsar)

Sixty-Second Rounds

The categories are ...

1. Reference Books
2. The Ottoman Empire
3. Hormones

REFERENCE BOOKS

Name the...

(1) Type of reference book that collects words and their definitions.

ANSWER: dictionary

(2) Reference book compiled by Denis Diderot [deh-nee dee-deh-roh] that collects short articles about general topics.

ANSWER: Encyclopedia (accept Encyclopédie)

(3) Annual publication of predictions such as weather forecasts or lunar cycles, two of which were written under the names 'Poor Robin' and 'Poor Richard.'

ANSWER: almanacs (accept Poor Robin's Almanack or Poor Richard's Almanack)

(4) Surname of Noah, an American partner of the Merriam siblings who wrote a *Blue-Backed Speller*.

ANSWER: Noah Webster

(5) British doctor who published the first modern thesaurus in 1805.

ANSWER: Peter Mark Roget

(6) Lexicographer who created a reference book describing *The English Language* in 1755.

ANSWER: Samuel Johnson

THE OTTOMAN EMPIRE

Name the...

(1) Modern-day country containing Istanbul that grew out of the empire.

ANSWER: Republic of **Turkey**

(2) Sultan, called the Magnificent, that ruled over an Ottoman golden age.

ANSWER: **Suleiman** I (accept **Suleiman** the Magnificent; accept **Suleiman** the Lawgiver)

(3) City along the Tigris river, the capital of Safavid Persia, captured by that sultan in 1534.

ANSWER: **Baghdad**

(4) Infantry unit originally composed of kidnapped Christian children that was abolished after the Auspicious incident.

ANSWER: **Janissary** (accept **Janissaries**)

(5) Sultan that, in 1453, successfully captured Constantinople.

ANSWER: **Mehmed II** (accept **Mehmed the Conqueror**; accept **Mehmet II**; accept **Mehmet the Conqueror**; accept **Fatih Sultan Mehmet**; prompt on Mehmed; prompt on Mehmet)

(6) Palace constructed by that sultan that was the center of Ottoman government for 200 years.

ANSWER: **Topkapi** [toe-kap-u] Palace (accept **Cannon Gate** palace; accept **Tokapu Sarayi**)

HORMONES

Name the...

(1) Bodily system responsible for producing and releasing hormones

ANSWER: endocrine system

(2) Bodily system that transports hormones in blood through arteries and veins.

ANSWER: circulatory system (or cardiovascular system)

(3) Hormone, produced by glands above the kidneys, that triggers the fight-or-flight response.

ANSWER: adrenaline (or epinephrine)

(4) Gland found in the neck that requires iodine to produce calcitonin and two metabolic hormones.

ANSWER: thyroid

(5) Class of female sex hormones that are synthesized from androgens, male sex hormones like testosterone.

ANSWER: estrogens

(6) Cells in the pancreas' Islets of Langerhans that produce the hormone insulin.

ANSWER: beta cells

Second Half

(Tossup 9) **Ions of this element are stored in the sarcoplasmic reticulum. Ions of this element are released and bind to troponin during muscle contraction. Vitamin (*) D is needed to absorb this mineral in the body. Osteoclasts remove this mineral and use it to regulate blood levels of this mineral. For ten points, name this mineral that strengthens bones and teeth and is found in dairy products.**

ANSWER: calcium (accept Ca)

(Bonus 9) E.O. Wilson and Robert MacArthur coined a field of “biogeography” named for these ecosystems. For ten points each,

[Part A] Name these fragmented habitats. Forster’s rule states that large species in these habitats tend to shrink in size, and small species in these habitats tend to grow in size.

ANSWER: islands

[Part B] A trip to the Galapagos islands led this crew member of the *Beagle* to write *On the Origin of Species* in which he laid out his theory of natural selection.

ANSWER: Charles Darwin

[Part C] Darwin’s ideas came after observing the differing behaviors and beak shapes of these birds.

ANSWER: finches

(Tossup 10) **In this province, the efforts of Jean Lesage’s government led to the Quiet Revolution. James Cross and Pierre Laporte were kidnapped in this province as part of the (*) October Crisis. In 1995, this province voted to remain a part of Canada as part of highly contested referendum. Montreal is located in, for ten points, what primarily French-speaking Canadian province?**

ANSWER: Quebec

(Bonus 10) In 2017, this woman became the first British monarch to celebrate a Sapphire Jubilee. For ten points each,

[Part A] Name this current Queen of the United Kingdom who ascended to the throne after the death of her father George VI.

ANSWER: Elizabeth II (prompt on Elizabeth)

[Part B] George VI was a member of this royal house. This house was created after George V, wanting to distance himself from its German roots, changed the name of the House of Saxe-Corbug and Gotha.

ANSWER: House of Windsor

[Part C] George VI ascended to the throne after this man, his brother, was forced to abdicate. This husband of Wallis Simpson was made Governor of the Bahamas due to his alleged Nazi sympathies.

ANSWER: Edward VIII

(Tossup 11) **With Earl Hines, this musician recorded the most famous version of “West End Blues.” Songs composed by this musician include “Swing That Music” and “Potato Head Blues.” During the 1920s, this musician led groups called the (*) ”Hot Five” and “Hot Seven.”** This musician was nicknamed Satchmo and helped popularize scat singing. For ten points, name this trumpeter who sang “What A Wonderful World.”

ANSWER: Louis Armstrong (accept Satchmo before read)

(Bonus 11) This artist travelled to north Africa in search of new models for painting, which led to the creation of *The Sultan of Morocco and his Entourage* and *The Women of Algiers In Their Apartment*. For ten points each,

[Part A] Name this French Romantic painter who created *The Death of Sardanapalus* and a painting of a bare-breasted woman carrying a flag during the July Revolution.

ANSWER: Eugène Delacroix

[Part B] Delacroix [deh-lah-kwah] painted Marianne, a symbol of the French Republic, as the title figure of this painting, in which she hold the French flag and leads a group of men.

ANSWER: Liberty Leading the People (accept La Liberté guidant le peuple)

[Part C] This other Romantic painter is often considered the spiritual successor to Delacroix. This painter’s most famous works include *The Charging Chasseur* and *The Raft of the Medusa*.

ANSWER: Théodore Géricault

(Tossup 12) **In the Joya no Kane [joh-yah noh kah-nay] ceremony, these objects are struck 108 times to purify believers. A type of this object, called suzu, are used by miko [mee-koh] at kagura ceremonies, where they are grouped together in a cluster and used as an (*) instrument. When praying at a Shinto shrine, one of these objects is struck to attract kami [kah-mee].** For ten points, name these ritual metal objects that often use clappers to generate a ringing sound.

ANSWER: bells (accept doutaku [doh-tah-koo]; accept kagura suzu before it is mentioned)

(Bonus 12) Answer the following about the religious codex the Popul Vuh. For ten points each,

[Part A] The Popul Vuh is a religious record of this long-lived Mesoamerican culture that built Chichen Itza and used a Long Count calendar.

ANSWER: Mayan Empire

[Part B] In the Popul Vuh, the Mayan Hero Twins, Hunahpu [hoo-nah-poo] and Xblanaque [sh’bah-lon-kay] travel to this mythical location ruled by One Death and Seven Death.

ANSWER: Xibalba [shih-ball-bah] (accept Mayan underworld or afterlife)

[Part C] The Hero Twins defeated the gods of the underworld by playing this sports game common in ancient Mesoamerica.

ANSWER: Mesoamerican ball game

(Tossup 13) **Richard Posner has argued that there is no need to study this document since its authors could not have envisioned the modern world. Under the pseudonym Publius, James Madison, John Jay, and Alexander (*) Hamilton supported this document. Thomas Jefferson warned against valuing this document as a sacred Ark. The Federalist Papers supported, for ten points, what document that created the framework of the United States?**

ANSWER: U.S. Constitution

(Bonus 13) On January 2nd, 2020, the U.S. announced that a drone strike had killed this country's Major General, Qasem Soleimani. For ten points each,

[Part A] Name this country governed by Supreme Leader Ayatollah Khamenei from Tehran.

ANSWER: Iran (accept Islamic Republic of Iran)

[Part B] Major General Qasem Soleimani was the leader of this Iranian paramilitary force. This branch of the Islamic Revolutionary Guard Corps is responsible for international operations.

ANSWER: Quds Force

[Part C] The Quds force currently supports the Houthi rebels in this country, where they control the capital city of Sana'a.

ANSWER: Republic of Yemen (accept Yaman)

(Tossup 14) **This variable names a type of crystal that was first discovered by Frank Wilczek in 2012. According to the theory of relativity, this variable is (*) dilated at high velocities and intense gravitational forces. In Minkowski space combines this variable with space which can be warped by gravity. For ten points, name this variable that is measured in seconds and minutes.**

ANSWER: time

(Bonus 14) This rover landed in the Aeolis Palus in 2011 and is still operational today. For ten points each,

[Part A] Name this rover designed to explore the Gale crater and search for signs of extra-terrestrial life.

ANSWER: Curiosity

[Part B] The Curiosity is a rover on this planet. This planet is the 4th planet from the sun, which is known as the red planet.

ANSWER: Mars

[Part C] In 2015, the liquid form of this substance was found on the surface of Mars. This substance's solid form is also found at both poles of Mars.

ANSWER: water

(Tossup 15) **A man in this novel recalls his mother’s death with the simple line “picnic, lightning.” In the final chapters of this novel, its narrator goes to the Pavor Manor and repeatedly fires a gun to kill the playwright (*)** Clare Quilty. The narrator marries Charlotte Haze in order to get to her 12-year-old daughter, Dolores. Humbert Humbert narrates, for ten points, what novel by Vladimir Nabokov?

ANSWER: Lolita

(Bonus 15) This book is dedicated to the memory of its author’s parents, and to his deceased younger sister, Tzipora. For ten points each,

[Part A] Name this memoir whose main character and author, Elie Wiesel, grows up in Sighet in the 1940s before he is forcibly transported to Auschwitz and Buchenwald.

ANSWER: Night (accept but do not otherwise reveal La Nuit)

[Part B] *Night* is set during this genocide that targeted European Jews during the Second World War.

ANSWER: Holocaust (accept Shoah)

[Part C] Before it was translated into English, *Night* was written in Yiddish and then substantially revised for a 1958 publication in this language. The author Marcel Proust wrote in this language.

ANSWER: French (accept français)

(Tossup 16) **In what is now this country, the Expedition of a Thousand, led by Giuseppe Garibaldi, conquered a kingdom centered on Palermo. Victor Emmanuel II, the King of (*)** Sardinia, became the first person to assume the throne of this country in 1300 years after completing the Risorgimento in 1861. The Papal States were annexed by, for ten points, what country that absorbed the kingdoms of Sicily and Naples as part of its reunification?

ANSWER: Italy (accept Italia)

(Bonus 16) In the 20th century, this city was rocked by the Zoot Suit and Watts riots. For ten points each,

[Part A] Name this largest city in California which has been the site of frequent racial unrest.

ANSWER: Los Angeles (accept LA)

[Part B] In 1992, riots broke out after four LAPD officers were acquitted for attacking this man. During the riots, this man tried to quell violence by asking “can we all just get along?”

ANSWER: Rodney King

[Part C] During the Rodney King riots, skirmishes broke out between the black community and people of this ancestry. In the prelude to the riots, a person of this ancestry killed 9th grader Latasha Harlins because he thought she was stealing from his store.

ANSWER: Korean Americans (accept Hangukgye-Migukin)

Tiebreakers

(Tossup 17) **In the final song of this opera, a character hands her son an American flag before committing suicide. The title character of this opera sings the aria (*)** “One fine day we shall see” in which she dreams of being reunited with her husband, the American sailor B.F. Pinkerton. For ten points, name this Giacomo Puccini opera about Cio-cio-san, the title Japanese woman.

ANSWER: Madama Butterfly (accept Madame Butterfly)

(Bonus 17) In technical usage, this term refers to sequences of nucleotides that encode for the creation of RNA or proteins. For ten points each,

[Part A] Name these DNA sequences that are passed on from parents to their offspring. Variants in these DNA sequences are known as alleles.

ANSWER: genes (accept word forms like genetic)

[Part B] This scientist helped advance the genetic theory of evolution in books like *The Selfish Gene*. This scientist controversially claimed that religious belief was delusional in *The God Delusion*.

ANSWER: Richard Dawkins

[Part C] Dawkins also coined this term, which he used to refer to bits of cultural information that behave as genes do.

ANSWER: memes