

Bowl Round 1

First Half

(Tossup 1) **This type of location sits at the center of a model created by economist Johann Heinrich von Thünen, a landowner from Germany. Ed Koch, David Dinkins, and Fiorello (*) LaGuardia** were all politicians who were the leaders of one of these places in the 20th century. Georges-Eugène Haussmann modernized the layout of one of these places in the 19th century with funding from Napoleon III. For ten points, name these densely populated settlements made up of urban and suburban areas.

ANSWER: **City** [Accept New York City; Accept Urban Center before mentioned; prompt on "Capital"]

(Bonus 1) This thinker wrote of the term *vita activa*, which she coined in the *Human Condition*, separating the "active life" into three spheres, work, labor, and action. For ten points each:

Part 1: Name this German-Jewish thinker that spoke on the "banality of evil" in her book, *Eichman in Jerusalem*.

ANSWER: **Hannah Arendt**

Part 2: In that work, Arendt downplays Eichmann's role in this far-right party, claiming he had little to do with the Wannsee (VAHN-zay) Conference and the Final Solution.

ANSWER: **Nazi Party** [Accept National Socialists]

Part 3: Arendt criticized this Israeli agency, their equivalent to CIA, for their extrajudicial kidnapping of Eichmann from Argentina.

ANSWER: **Mossad**

(Tossup 2) **A tabloid based in this state's was formerly a broadsheet newspaper founded by Alexander Hamilton. While serving as governor of this state, Nelson Rockefeller put down the Attica Prison Riots.** (*) Hillary Clinton served as a senator from this state, which more recently has elected Kirsten Gillibrand and Chuck Schumer. For ten points, name this U.S. state, where Washington said farewell to his officers at Fraunces Tavern near Wall Street.

Answer: **New York**

(Bonus 2) The "Death Special" machine gun was used in this state when the Baldwin-Felts Detective Agency attacked a group of striking coal miners. For ten points:

Part 1: Name this western state where John D. Rockefeller Jr. violently put down that strike in the Ludlow Massacre.

Answer: State of **Colorado**

Part 2: Colorado was also the site of one of these events, which saw thousands of "Fifty-Niners" come to Colorado. Another event of this type began after James Marshall made a valuable discovery.

Answer: **gold rush**

Part 3: James Marshall found gold in this state's Sutter's Mill, which names the most famous gold rush of the 19th century. San Francisco became a "boomtown" as a result of this state's gold rush.

Answer: State of **California**

(Tossup 3) A literary work of this type claims "from fairest creatures we desire increase," and is addressed to a "Fair Youth." Poems of this type claim that "music hath a far more pleasing sound" than a "Dark Lady's" voice and say a lover is "more lovely and more temperate" than the title event. "My Mistress' Eyes Are Nothing Like the Sun" and "Shall I Compare Thee to a Summer's Day?" are two of, for ten points, what fourteen-line poems written by Shakespeare?

Answer: **sonnets** by Shakespeare (accept Elizabethan sonnets; prompt on "poem" or "poetry" before mentioned)

(Bonus 3) The narrator of this novel notes that "Nobody'd be different. The only thing that would be different would be you" while describing looking at exhibits at the Museum of Natural History. For ten points each,

Part 1: Name this novel whose narrator also recalls visiting the museum with his sister Phoebe.

Answer: The ***Catcher in the Rye***

Part 2: This narrator of *The Catcher in the Rye* visits many landmarks in New York City, including Rockefeller Center after he leaves Pencey Prep.

Answer: Holden **Caulfield** (accept either underlined portion)

Part 3: This author of the collection *Nine Stories* wrote *The Catcher in the Rye*.

Answer: Jerome David **Salinger**

(Tossup 4) **Hydrochloric acid has a lower boiling point than hydrofluoric acid does because it lacks these bonds. Adenine and thymine are held together with two of these bonds and guanine and cytosine are held together with three of them.** (*) These bonds in water give water its very high specific heat. For ten points, name these bonds that occur between fluorine, nitrogen, or oxygen and this bond types' namesake lightest element.

Answer: **hydrogen bonds**

(Bonus 4) The "ballistic" type of these objects can be used to measure a bullet's speed. For ten points each.

Part 1: Name these oscillators that consist of a mass suspended on a string from a single pivot point.

ANSWER: **pendulums**

Part 2: Two pendulums suspended end from end displays this unpredictable kind of behavior, which is defined as being highly sensitive to initial conditions as seen in the "butterfly effect."

ANSWER: **chaos** (accept **chaotic** motion)

Part 3: At low values for the amplitude, the period of a pendulum can be estimated using this approximation represented by the equation "sine theta equals theta."

ANSWER: **small-angle** approximation

(Tossup 5) **The Sepoy Mutiny and the subsequent establishment of the British Raj ended this empire. The** (*) Taj Mahal was built by a ruler of this empire to serve as a mausoleum for his wife. In the aftermath of the First Battle of Panipat, and the defeat of the Delhi Sultanate, this empire was founded by Babur. For ten points, name this Indian empire ruled by leaders such as Shah Jahan and Akbar the Great.

Answer: **Mughal** Empire (accept Mogul Empire)

Edward S. Morse coined the term for one of this country's prehistoric eras. For ten points each,

(Bonus 5) Part 1: Name this East Asian island nation, where an early period of its history was named for the city of Nara.

Answer: **Japan**

Commented [1]: repeated, something new needed

Part 2: This ethnic group in northern Japan may have formed as a result of the combination of the Jomon people with other ethnic groups. These people practice a ritual known as iyomante, in which they captured and raised a bear cub and sacrificed it.

Answer: **Ainu** people

Part 3: Japanese lore states that Jimmu, the first of these people, ascended to power during the end of the Jomon period. Hirohito, another of these people, renounced his divinity in the Jewel Voice Broadcast.

Answer: **emperors** of Japan

(Tossup 6) **In one myth, an old woman gives her grandson a magic object meant to capture these animals, which he uses to lasso the sun. This animal was the form of Vishnu's first avatar, Matsya. Finn MacCool burns his finger cooking one of these animals, allowing (*) him to gain all the world's knowledge. In Chinese myth, these creatures turn into dragons by crossing the Dragon Gate. For ten points, name this animal depicted in the Christian "ichthys" symbol.**

ANSWER: **fish**

(Bonus 6) This goddess's offer to the Trojan prince Paris was political power, but he chose to marry Helen instead. For ten points each,

[10] Name this wife of Zeus and queen of the gods. This goddess repeatedly tried to kill Heracles out of jealousy through methods like putting snakes in his crib.

ANSWER: **Hera**

[10] Another mortal who felt the wrath of Hera was this one, who was disguised as a cow to avoid her attention. Hermes killed the hundred-eyed Argus to help this mortal escape.

ANSWER: **Io**

[10] After Hera caused his mother Semele's death by convincing her to gaze upon Zeus's true form, this god was born out of Zeus' thigh. This god's crazed followers were called maenads.

ANSWER: **Dionysus**

(Tossup 7) **Expressing operations in this field can be done using dot notation and Lagrange's notation, which uses the prime symbol. Fluxions were an early construct in this field. Approximations of an operation in this field can be done using Simpson's rule or a Riemann sum. (*) The "fundamental theorem" of this field connects differentiation and integration. For ten points, name this field that studies continuous change, developed by Newton and Leibniz.**

ANSWER: **calculus**

(Bonus 7) This formula gives the roots of a parabola. For 10 points each:

[10] Name this formula that states that x is equal to negative b plus or minus the square root of b squared minus four ac , all over two a .

ANSWER: **quadratic** formula

[10] The quadratic formula concerns polynomials of this degree, which is the degree of a parabola because it is the highest power of x found in the formula.

ANSWER: **two**

[10] This method of deriving the quadratic formula moves the constant term and another term to the other side of the equation, which makes the left hand side factorable.

ANSWER: **completing the square**

(Tossup 8) **This country's Woodlands area is home to the southern end of a causeway that links it to the mainland at the city of Johor. This country's Marina Bay region is home to the spiraling Helix Bridge. This country became the world's first to be involuntarily made independent in (*) 1965, when it was expelled from Malaysia. For ten points, name this island city state located at the southern tip of the Malay Peninsula.**

Answer: **Singapore**

(Bonus 8) The city of Batumi is known as the "Las Vegas of [this body of water]." For ten points each:

[10] Name this body of water which includes the resort town of Sochi. The Crimean Peninsula juts into this body of water.

ANSWER: **Black Sea**

[10] Batumi is in this nation with two breakaway republics, Abkhazia and South Ossetia. While being known by their Greek name worldwide, this nation's native people call themselves Kartvelians.

ANSWER: Republic of **Georgia** [Accept Saqartvelo]

[10] Just over the border with Georgia is this Russian mountain, the highest in Europe.

ANSWER: Mount **Elbrus**

Category Rounds

The categories are...

1. South Africa
2. Radioactive Substances
3. Huckleberry Finn

South Africa

Name the...

Part 1: system of "Separateness," a former type of legalized segregation in South Africa

Answer: **apartheid**

Part 2: the 20th century pope who condemned South African Apartheid at the International Court of Justice

Answer: Pope **John Paul II**

Part 3: the massacre of Black students protesting the use of Afrikaans in school in a Johannesburg township

Answer: **Soweto** Massacre

Part 4: South African President, who with Nelson Mandela earned a Nobel Peace Prize for ending Apartheid

Answer: F.W. **de Klerk**

Part 5: Country completely surrounded by South Africa

Answer: **Lesotho** (pronounced leh-SOO-too, but accept phonetic pronunciation)

Part 6: Wife of Nelson Mandela who was also a politician

Answer: **Winnie** Mandela

Radioactive Substances

Name the

Part 1: Type of electromagnetic radiation with the shortest wavelength, often emitted from nuclear fission.

Answer: **Gamma rays**

Part 2: Husband and wife couple who won Nobel prizes for researching radioactive elements

Answer: Pierre and Marie **Curie**

Part 3: Element extracted from pitchblende, named for an Eastern European country.

Answer: **Polonium**

Part 4: Type of decay characterised by plus and minus, caused by the weak force.

Answer: **Beta**

Part 5: Most reactive metal in Group I of the Periodic table, located below rubidium.

Answer: **Cesium**

Part 6: German scientist who discovered X rays.

Answer: Wilhelm **Roentgen**

Huckleberry Finn

In relation to the novel *The Adventures of Huckleberry Finn*, who is...

Part 1: The author of the book?

Answer: Mark **Twain** (accept Samuel Langhorne **Clemens**)

Part 2: The young friend Huck pretends to be late in the book, and who titles another novel by the same author?

Answer: **Tom Sawyer** (accept either bold name)

Part 3: The escaped slave who rafts down the Mississippi River with Huck?

Answer: **Jim**

Part 4: The woman who cares for Huck with her sister, Miss Watson?

Answer: **Widow Douglas**

Part 5: The swindler who works with the "Dauphin?"

Answer: the **Duke** (accept Duke of Bridgewater; accept Bilgewater)

Part 6: The aunt of Huck's friend, who plans to adopt Huck with her husband, Silas?

Answer: **Sally Phelps** (prompt on "Phelps")

Second Half

(Tossup 9) **The OHD method hydrates artifacts made of this mineral to determine their age. Water mixes with this mineral to form perlite. This extrusive mineral forms from rapid cooling of felsic lava without formation of any crystals.** (*) Conchoidal fracture produces curved sharp edges from this mineral, making it useful for surgical blades. For ten points, name this shiny black form of volcanic glass.

ANSWER: **obsidian**

(Bonus 9) This polymath was called "The Father of Modern Science" by Einstein, and he was formally reconciled by the Catholic Church in the 90s by Pope John Paul II. For ten points each:

Part 1: Name this Italian scientist who wrote the satirical Dialogue Concerning the Two Chief World Systems. An apocryphal tale tells how he tested gravity by allowing cannonballs to fall off the side of the Leaning Tower of Pisa.

ANSWER: **Galileo Galilei** (accept either portion)

Part 2: During Galileo's house arrest, he wrote *Two New Sciences* where he posited the basic structure of this physics concept, which is the resistance applied to an object that changes its velocity.

ANSWER: **Inertia**

Part 3: Part of Galileo's house arrest was caused by his rejection of this model often named for Ptolemy.

ANSWER: **Geocentric Model**

(Tossup 10) **A character in this novel translates a note from Arne Saknussemm that leads him to discover a giant shepherding a herd of mastodons. This novel's protagonist witnesses a battle between an ichthyosaur and a plesiosaur in an enormous cavern after descending into an (*) Icelandic volcano with Hans and Axel. For ten points, name this novel by Jules Verne in which Professor Lidenbrock leads an incredible underground expedition.**

Answer: ***Journey to the Center of the Earth*** (accept *A Journey to the Center of the Earth*; accept *A Journey to the Interior of the Earth*; accept ***Voyage au centre de la Terre***)

(Bonus 10) This character supervises the placement of fifty boxes of earth throughout London that act as graves and as the source of his power. For ten points each,

Part 1: Name this Transylvanian nobleman who earlier and held the lawyer Jonathan Harker captive in his castle in eastern Europe.

Answer: Count **Dracula**

Part 2: This author wrote the vampire novel *Dracula*.

Answer: Bram **Stoker**

Part 3: In *Dracula*, the Count uses vampirism to control this woman, who then has a telepathic link with Dracula that the main characters use to track Dracula across Europe. At the end of the novel, this woman marries Jonathan Harker.

Answer: **Mina** (prompt on Wilhelmina Murray; prompt on Harker)

(Tossup 11) **This general invaded modern day Kuwait after raiders attacked his people's camel train in the Badr Expedition. In the Battle of the Trench, this general led the defense of a town known at the time as Yathrib from Confederates led by Banu Nadir. (*)** This general led a prolonged campaign against his own people, the Quraysh, and later captured Mecca. For ten points, name this 7th century founder of Islam.

ANSWER: **Muhammad**

(Bonus 11) One character in this book is a shepherd from Midian named Jethro. For ten points each,

[10] Name this second book of the Bible. During this book, God smites the Egyptians with the Ten Terrible Plagues.

ANSWER: Book of **Exodus**

[10] In Exodus, this Hebrew leader parts the Red Sea and receives the Ten Commandments from God on Mount Sinai. This leader communes with God at the burning bush.

ANSWER: **Moses**

[10] While Moses is on Mount Sinai, Moses's brother Aaron makes this idol out of the Israelites' jewelry. Moses forced the Israelites to drink this idol in liquid form after crushing it into powder.

ANSWER: the **golden calf**

(Tossup 12) A king of this name, the last king of the House of York, likely murdered the "Princes in the Tower." That man, the third king of this name, rose to power after the death of his brother Edward IV. An earlier king with this name clashed with Saladin during the Third Crusade. For ten points, give this name shared by three English kings, including one known as "the Lionheart."

Answer: **Richard**

(Bonus 12) After this event, Jan Palach set himself on fire to protest a foreign invasion. For ten points each,

Part 1: Name this event in 1968 Czechoslovakia that began when Alexander Dubcek (DOOB-check) was elevated to power. It continued until the Soviet Union and four other Warsaw Pact nations invaded the country to stop reforms.

Answer: **Prague Spring**

Part 2: This Soviet leader ordered the invasion of Czechoslovakia to end the Prague Spring reforms. He justified the assault using a namesake doctrine that called for the invasion of any socialist states facing threats.

Answer: Leonid **Brezhnev** (accept Brezhnev Doctrine)

Part 3: The Brezhnev Doctrine was really an existing Soviet policy that Nikita Krushchev used to invade this nation during a 1956 revolution. The revolt began as a student protest in this country's capital of Budapest.

Answer: **Hungary** (or Hungarian People's Republic)

(Tossup 13) With the help of Phillippe Halsman, Salvador Dali placed his face over the title figure in a 1954 photomontage. Marcel Duchamp made a "readymade" named L.H.O.O.Q., which was a postcard of this painting with a mustache added to the title woman. Vincenzo Peruggia, a museum worker at the Louvre, orchestrated a theft of this painting in the early 20th century. For ten points, name this Leonardo da Vinci portrait of an Italian woman with an enigmatic smile.

ANSWER: **Mona Lisa** [Accept La Gioconda]

(Bonus 13) The Lakota Sioux referred to the location of this sculpture as Six Grandfathers. For ten points each,

Part 1: A campaign by Doane Robinson to increase tourism in South Dakota led to the creation of what massive granite sculpture beginning in the 1920s?

Answer: **Mount Rushmore**

Part 2: This American sculptor of Danish heritage and his son supervised the creation of Mount Rushmore.

Answer: Gutzon **Borglum**

Part 3: This man's face is the leftmost of the four faces depicted on Mount Rushmore. Gilbert Stuart's Athenaeum Portrait of this president appears on U.S. paper currency.

Answer: George **Washington**

(Tossup 14) **This structure's rear two thirds are innervated by the trigeminal nerve, while the rest of this structure is innervated by facial nerves 7 and 9. This structure can be affected by a "geographic" condition which causes the death of this structure's papillae. This structure contains the hyoglossus and styloglossus muscles.** (*) For ten points, name this muscular structure in the mouth that detects taste.

Answer: **tongue**

(Bonus 14) Hox genes were discovered in this model organism, For ten points each.

[10] Name this insect whose taxonomic name is *Drosophila melanogaster*. Thomas Hunt Morgan analyzed eye color in this organism to show the existence of sex-linked genes.

ANSWER: **fruit fly**

[10] *Drosophila* fruit flies are commonly used for genetic experiments because they only have this many pairs of chromosomes. This is the number of different nucleotides found within DNA.

ANSWER: **four**

[10] Fruit flies have "puffy"-looking polytene chromosomes within exocrine glands that produce this bodily substance, which also contains the enzymes amylase and lipase.

ANSWER: **saliva**

(Tossup 15) **One novel titled for one of these animals depicts Marty Preston blackmailing Judd Travers about hunting deer out of season in order to buy that title one of these animals. Two of these animals named** (*) Little Anne and Old Dan appear in the Wilson Rawls novel *Where the Red Fern Grows*. In a Fred Gipson novel, one of these animals is shot after contracting rabies. For ten points, name these animals that title the novels *Shiloh* and *Old Yeller*.

Answer: **dog** (or canine)

(Bonus 15) In this novel, Bill and Roger sneak away from their group while gathering wood. For ten points each,

Part 1: Name this novel in which a group of young English boys, including Ralph and Piggy, are stranded on a deserted island during World War II.

Answer: **Lord of the Flies**

Part 2: This English author wrote Lord of the Flies.

Answer: William **Golding**

Part 3: Bill and Roger abandon Ralph and Piggy's group to join a group of hunters led by this red-headed boy, who starts off as the leader of a group of choir boys.

Answer: **Jack Merridew** (accept either bold name)

(Tossup 16) **Artists in this performance discipline utilize a principle known as "Yes, AND," in which they enthusiastically endorse and build upon suggestions made by colleagues. Performers in this field rely on their voices, body language, and (*) "space work" to create scenes. Groups who specialize in this field include the Upright Citizens Brigade and Second City. For ten points, what theatrical art form is explored on "Whose Line is It, Anyway?" and is named after its spontaneous nature?**

Answer: **Improvisation** (prompt on comedy)

(Bonus 16) This musician composed the music for Blowout, a neo-noir film which won the Grand Prix at Palme d'Or. For ten points each:

Part 1: Name this Jazz keyboardist of compositions like "Watermelon Man" and "Sly," both found on the funk influenced Head Hunters.

ANSWER: Herbie **Hancock**

Part 2: Hancock first gained prominence in the jazz scene by being in this jazz musician's quintet. He recorded Kind of Blue, Birth of the Cool, and Sketches of Spain.

ANSWER: **Miles Davis**

Part 3: This other musician has an uncredited bass performance on Birth of the Cool. His recording of "Goodbye Pork Pie Hat" appeared on an album titled [this artist] Ah Um.

ANSWER: Charles **Mingus**

Tiebreaker

(Tossup 17)

(Bonus 17) This nation's two prominent political parties formed the National Front through the "Declaration of Sitges," ending a period of political instability in the 1950s. For ten points each:

Part 1: Name this nation that experienced La Violencia, beginning with the Bogotazo. This Andean nation once owned Panama until the beginning in the 20th century.

ANSWER: Republic of **Colombia**

Part 2: In the mid 2010s, a President of Colombia earned a Nobel Prize for negotiating a Marxist-Leninist guerrilla movement that made much of their money through drug trafficking and kidnappings.

ANSWER: **FARC**

Part 3: Ernesto Samper was embroiled in controversy when it was revealed his Presidential campaign had been funded by drug money from a cartel from this city near the Pacific coast.

ANSWER: **Cali**