

Round 6

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Tossups

(1) **This city’s Adams Morgan neighborhood was partially shaped by the L’Enfant and McMillan Plans. This city and its suburbs are surrounded by the Beltway, and it is across the (*) Potomac River from Arlington, Virginia. A Daniel Chester French sculpture in this city sits across a reflecting pool from an obelisk on the National Mall. For ten points, name this planned city, the location of the Lincoln Memorial, Capitol Hill, and the White House.**

ANSWER: Washington, D.C. (accept District of Columbia; prompt on “D.C.,” do not accept or prompt on “Washington” alone)

(2) **An essay about this genre of play Apollonian and Dionysian types of it. The central conflict of this dramatic genre should inspire catharsis in the audience, according to Aristotle’s *Poetics*, which discusses the difference between satyr plays and this genre in the work of (*) Aeschylus and Euripides. For ten points, name this genre of play used to tell stories of personal flaws, fatal mistakes, and misfortune, unlike the genre of comedy.**

ANSWER: Greek tragedy (accept tragoidia; prompt on “drama” before “dramatic genre” is read; prompt on “plays” before “satyr plays” is read)

(3) **It is not magnetism, but this property confines the plasma in a hohlraum to fuse deuterium and tritium. A balance named for this concept can measure mass in the absence of gravity. Torque is proportional to a (*) “moment” named for this concept that explains why dishes remain in place when a tablecloth is quickly pulled away. Newton’s first law concerns, for ten points, what principle that describes the tendency of objects to remain either in uniform motion or at rest?**

ANSWER: inertia (accept inertial)

(4) **A disaster on this continent required lifeboats to be sent to South Georgia Island, where Sir Ernest Shackleton was able to find help for the rest of the men of the *Endurance*. During the (*) *Terra Nova* expedition, Robert Scott died on this continent. In 1911, Roald Amundsen’s team won a race for discovery on, for ten points, what continent that was discovered in 1840 and that is home to the South Pole?**

ANSWER: Antarctica

(5) **This god is called Nila-kantha because of a story in which he neutralizes the Hala-hala poison. This father of Kartikeya is known as Mahadeva and as Nataraja, the Lord of the Dance. After this god was separated from his wife, (*) Parvati, he cut off the head of his son, Ganesha, and replaced it with that of an elephant. For ten points, name this blue-throated Hindu destroyer god, who forms the Trimurti with Brahma and Vishnu.**

ANSWER: Shiva (accept Siva)

(6) **The “steam” form of this laboratory technique does not work on azeo-tropes, but is used to extract plants’ essential oils. A “fractional” type of this process partitions the hydrocarbons in crude oil. This lab technique (*) separates components of a liquid mixture according to their differences in boiling points. For ten points, name this lab technique that is used to concentrate alcohol and produce a namesake form of pure water.**

ANSWER: distillation (accept word forms like distilling)

(7) **This team forfeited the second game of a doubleheader after rock DJ Steve Dahl’s “Disco Demolition Night” turned into a riot at Comiskey Park. Kenesaw Mountain Landis banned eight members of this team, including (*) “Shoeless” Joe Jackson, for life after they were accused of intentionally losing the World Series. Lucas Giolito [Lucas jee-oh-lee-toh], Eloy Jiménez [eh-LOY hih-MEH-nez], and MVP José Abreu [José ah-BRAY-yoo] are current players for, for ten points, what American League baseball team that has a local rivalry with the Chicago Cubs?**

ANSWER: Chicago White Sox (prompt on “Chicago;” prompt on “Sox”)

(8) **This event attracted immigrants to a region nicknamed “Jinshan;” the increased population prompted an attack on an outpost on the Fresno River, inciting the Mariposa War. This event began when Charles Bennett and newspaperman (*) Samuel Brannan publicized a discovery made by James Marshall at Sutter’s Mill, and instigated a mass migration. For ten points, name this 1849 event in which prospectors swarmed west to cities like San Francisco in search of a precious metal.**

ANSWER: California gold rush (accept 1849 gold rush; accept descriptions like the discovery of gold in California)

(9) **One of these musical works includes the patriotic song “Land of Hope and Glory” in its “trio” section. Compositions of this type include Edward Elgar’s *Pomp and Circumstance* ones, which are often played at (*) graduations, and ones named “The Liberty Bell” and “The Washington Post.” John Philip Sousa is the “king” of, for ten points, what musical compositions, such as the “Stars and Stripes Forever,” that help military groups walk in time?**

ANSWER: marches (accept military marches)

(10) **In this novel, an attack led by Pilkington and Frederick ends with the death of a stable boy, and forces Jones to abandon his land. In this novel, the Order of the Green Banner is invented for a leader who chases away a war hero named (*) Snowball after the Battle of the Cowshed. Despite being a “Hero, First Class,” Boxer is sent to a glue factory by Napoleon in this novel. For ten points, name this novel by George Orwell in which a group of pigs take over the title location.**

ANSWER: Animal Farm

(11) **Eight of these vehicles were involved in the failed Operation Eagle Claw. Many of these vehicles were pushed into the ocean after they evacuated civilians from Saigon. The company Sikorsky won a bid to produce these vehicles, which are called (*) *Marine One* when they transport the US President. During the Battle of Mogadishu, two of these vehicles called Black Hawks were shot down. For ten points, name this type of rotor-powered aircraft that can take off vertically.**

ANSWER: helicopters (prompt on “copter(s)”; prompt on “aircraft” until it is read; do not prompt on “airplane” or similar)

(12) **Plants found in this ecosystem are the most effective heavy metal traps for iron and copper. A slough [slew] is a type of this ecosystem that is dominated by sawgrass, and other types of this ecosystem grow sphagnum moss that accumulates as (*) peat. Rodent herbivores in this habitat include the muskrat and capybara, and it is home to wading birds like blue herons. For ten points, name this semi-aquatic ecosystem that includes the Everglades and Okefenokee Swamp.**

ANSWER: wetlands (accept specific types of wetlands such as marsh, bog, or fen; accept swamp before “Swamp” is read)

(13) **This architect designed the Jacobs House in the Usonian style, and built an Arizona studio to replace his Wisconsin home after it burned down. This architect used geometric art glass windows for a house in Hyde Park, Illinois. This architect of (*) Taliesin [tah-lee-ESS-in] and Robie House designed a home for Edgar Kaufmann whose patios are cantilevered over a waterfall in Pennsylvania. For ten points, name this American architect who created Prairie Style houses like Fallingwater.**

ANSWER: Frank Lloyd Wright (accept Frank Lincoln Wright)

(14) **Two of this agricultural industry’s “Big Four” are JBS and Cargill, which suffered large outbreaks early in the COVID-19 pandemic. In September 2021, the Biden Administration announced aid for this industry in the form of subsidies for small processors, a boost to the (*) Packers and Stockyards Act, and support for ranchers. For ten points, name this agricultural industry that has recently had a sharp rise in prices for steaks.**

ANSWER: beef industry (accept meatpacking; accept butchering cattle or cows; prompt on “agriculture” before it is read; do not accept or prompt on answers including other types of meat, like chicken or pork)

(15) **This author created a character who searches for Nicholas Vedder and Brom Dutcher when he returns from playing ninepins with Henry Hudson in the Catskill Mountains. In a story from this author’s collection *The* (*) *Sketchbook of Geoffrey Crayon*, Katrina Van Tassel marries Brom Bones after his romantic rival, Ichabod Crane, is chased away by the Headless Horseman. For ten points, name this author of “Rip Van Winkle” and “The Legend of Sleepy Hollow.”**

ANSWER: Washington Irving

(16) **The Wei Kingdom-era mathematician Liu Hui estimated the value of this constant with a ninety-six-sided polygon. Euler’s identity [OY-ler’s identity] relates this constant to e , i , one, and zero. One-third height times the (*) radius squared times this constant equals the volume of a cone. For ten points, name this constant, the ratio of a circle’s circumference to its diameter, approximated “three-point-one-four.”**

ANSWER: pi

(17) **This Greek god comforted Ariadne after Theseus abandoned her. This god took mercy on Tyrrhenian pirates who had kidnapped him by turning them into dolphins so they would not drown. This god inspired his followers, the Maenads, to murder (*) Orpheus, and carried a staff topped by a pinecone called the Thyrsus. For ten points, name this “twice-born” Greek god, who was born from the thigh of Zeus, and who governed vineyards and wine.**

ANSWER: Dionysus (accept Bacchus)

(18) **In this novel, Tina, Minnie, and Kitty play with a language teacher who lives in Miss Kirke’s boarding house with an aspiring writer. A visit to the Hummel family causes a girl in this novel to say that her sewing needle is “heavy” as she dies of (*) scarlet fever. Another girl in this novel marries Laurie Laurence after her sister rejects him to marry Professor Bhaer. For ten points, name this novel by Louisa May Alcott about Meg, Jo, Beth, and Amy March.**

ANSWER: Little Women

(19) **It is not Hubble, but a telescope named for this scientist has detected the most exoplanets to date. This scientist incorrectly used regular polyhedra to map distances between planets in his book (*) *Mysterium Cosmographicum*, and his *Astronomia Nova* correctly notes that a line joining a planet and the Sun sweeps out equal areas in equal time intervals. For ten points, name this astronomer who described elliptical orbits in his first law of planetary motion.**

ANSWER: Johannes Kepler

(20) **The spymaster Sir Francis Walsingham served as this monarch’s Secretary of State, and stopped the Ridolfi and Babbington plots that threatened this ruler. This monarch’s navy defeated an invasion attempt by Philip II [second] with the help of Sir (*) Francis Drake. Because this monarch died childless, James Stuart inherited the throne after her 1603 death. For ten points, name this final Tudor monarch of England, the sister of Mary I [first] and daughter of Henry VIII [eighth].**

ANSWER: Elizabeth I [first] (prompt on “Elizabeth” or “Queen Elizabeth”)

Bonuses

(1) *Stentor*, *Euglena*, and *Spirogyra* are among the organisms that can be seen in a drop of pond water examined under one of these devices. For ten points each,

Name this optical device with a stage and eyepiece, whose compound type may have maximum magnification of one thousand times.

ANSWER: light microscope

Careful examination of a pond water slide is needed to find this type of slow, amorphous protozoan that moves by pseudopods and engulfs its prey by phago-cytosis.

ANSWER: amoeba (accept amoebae or amoebas; accept ameboids)

In contrast to an amoeba, *Paramecia* appear to move quickly under the microscope because they are covered in these stiff, hair-like structures that beat back and forth.

ANSWER: cilia (accept cilium)

(2) This man's nickname, Black Jack, was given to him as an instructor at West Point because of his service as the head of the 10th Cavalry, a Buffalo Soldier regiment. For ten points each,

Name this leader of the Punitive Expedition into Mexico to capture Pancho Villa.

ANSWER: John "Black Jack" Pershing

John Pershing was part of the Ghost Dance campaign to eliminate the last uprisings of the Lakota Indians. The Ghost Dance campaign culminated in this 1890 massacre in which two hundred fifty Lakota men, women, and children were killed by James Forsyth's 7th US Cavalry.

ANSWER: Wounded Knee Massacre

During World War I, these protected ditches were often partially flooded, causing soldiers to develop foot damage; in response, Pershing spearheaded the invention of a new kind of boot.

ANSWER: trenches

(3) Many of the Norse gods owned magical objects. For example, this god's wife, Sif, possessed a golden cap made by the dwarven Sons of Ivaldi. For ten points each,

Name this bad-tempered lightning god for whom the Sons of Ivaldi created the hammer Mjolnir [mee-YOLL-neer]. During Ragnarök, the Norse apocalypse, this god and the great serpent Jormungandr [YOR-mun-gon-dur] will kill each other in battle.

ANSWER: Thor (accept Donar)

This queen of the Vanir, the Norse nature gods, owned a magical cloak made of falcon feathers which she could use to fly. She claimed half the souls of dead warriors for her mead-hall, Fólkvangr.

ANSWER: Freyja [FRAY-yah] (do not accept or prompt on "Frey," "Freyr," "Frigg," or "Frigga")

This Norse goddess used her mystical spinning wheel to create the clouds. This wife of Odin is the goddess of both family life and clairvoyance.

ANSWER: Frigg (accept Frigga)

(4) In this play, Mark Antony gives a funeral oration that begins, "Friends, Romans, countrymen, lend me your ears." For ten points each,

Name this Shakespeare play named for a Roman ruler, in which Antony mocks "an honorable man" who has helped assassinate the subject of his funeral oration.

ANSWER: Julius Caesar (accept The Tragedy of Julius Caesar; do not accept or prompt on partial answer)

Antony's speech mocks this man, a friend of Caesar who helps Cassius plan the assassination. Caesar is shocked that this man could hurt him, and asks "Et tu?" as he dies.

ANSWER: Brutus (accept Marcus Junius Brutus; accept "Et tu, Brute?")

Brutus and Cassius are members of this Roman legislative body, who work together to kill Caesar. Caesar's wife, Calphurnia, warns him against going to visit this group on the Ides of March.

ANSWER: Senate (accept Roman Senate; accept senators)

(5) Zeno of Elea is renowned for devising these statements, including one involving an arrow that seems to state that motion is impossible. For ten points each,

Give this term for a statement that logically contradicts itself. Another famous example of these statements involves Achilles being unable to pass a tortoise in a footrace.

ANSWER: **paradox**

Simple paradoxes can often be solved with this principle named for a Franciscan friar. This idea is often stated as “the simplest solution is most likely to be the best one.”

ANSWER: **Occam’s razor** (prompt on “law of parsimony” or “principle of parsimony;” Note: The friar was William of Ockham.)

Logician Willard Van Orman Quine described a paradox about non-existence as “[this philosopher’s] beard,” joking that Occam’s razor was unable to cut it. This mentor of Aristotle outlined his “theory of forms” in works like *Republic*.

ANSWER: **Plato** (accept **Platon**)

(6) In a painting of this season, Flora reaches into a pocket of flowers in her dress while, next to her, a blue Zephyrus grabs Chloris. For ten points each,

Name this season represented allegorically in a painting set in an orange grove. In the painting, the three Graces dance in a circle to welcome this season of rebirth.

ANSWER: **spring** (accept **Primavera**; accept **Allegory of Spring**)

The Allegory of Spring, or *Primavera*, was painted by this Renaissance artist from Florence. This artist made several mythological paintings for his patrons, the Medici family.

ANSWER: Sandro **Botticelli** (accept Alessandro di Mariano di Vanni **Filipepi**)

Flora, Chloris and Zephyrus also appear in this other mythological Botticelli painting, which depicts the title Roman goddess being blown to shore while standing on a seashell in this painting

ANSWER: The **Birth of Venus** (accept **Nascita di Venere**; do not accept or prompt on “Venus” alone; do not accept or prompt on “Aphrodite”)

(7) A poem about a man with this profession reflects that “each morning sees some task begin, / each evening sees it close; / something attempted, something done, / has earned a night’s repose.” For ten points each,

Name this profession. A man with this profession opens a poem by standing “under a spreading chestnut-tree,” and entertains his village’s children with his bellows.

ANSWER: **blacksmith** (accept **smith** or **smithy**; accept The **Village Blacksmith**)

The author of “The Village Blacksmith” also wrote a poetic profile of this American hero. In the poem, this man rides “to every Middlesex village and farm” to warn that the British are marching to Lexington and Concord.

ANSWER: Paul **Revere** (accept **Paul Revere’s Ride**)

This American poet wrote “The Village Blacksmith,” “Paul Revere’s Ride,” and *Evangeline*.

ANSWER: Henry Wadsworth **Longfellow**

(8) The notation “N choose K” is often used to denote this mathematical concept. For ten points each, Give this term for a selection of objects out of a group in which the order that the objects are chosen does not matter.

ANSWER: combinations

In this related concept symbolized with a P, the order in which the numbers are chosen *does* matter.

ANSWER: permutations

The formulas for both permutations and combinations involve factorials, in which an integer is multiplied by every positive integer less than it. The expression “n factorial” is written using this punctuation mark.

ANSWER: exclamation point (or exclamation mark)

(9) This royal’s reputation was destroyed after another woman forged letters in her name to acquire jewelry in the Diamond Necklace Affair. For ten points each,

Name this last queen of France before the Revolution, who was executed not long after her husband, Louis XVI [sixteenth].

ANSWER: Marie Antoinette (accept Maria Antonia Josepha Johanna)

Upon learning that French peasants were no longer able to afford bread, Marie Antoinette allegedly remarked, “Let them eat” this instead.

ANSWER: cake (accept brioche)

Marie Antoinette was killed at the beginning of this bloody period of the French Revolution. This period ended when its leader, Maximilian Robespierre, was also executed.

ANSWER: Reign of Terror (accept The Terror; accept La Terreur)

(10) The center of Yellowstone National Park sits within one of these geologic structures, the remains of an eruption from six hundred forty thousand years ago. For ten points each,

Name this hollow depression that forms when an eruption causes a volcano to collapse. Mount Mazama’s eruption created one of these structures that filled with water and became Crater Lake.

ANSWER: caldera

A caldera can result from the release of this hot, molten rock during an eruption. Before this substance reaches the surface, it is called magma.

ANSWER: lava

The Hawaiian islands contain few calderas because they were formed over one of these regions where mantle plumes push magma up towards the crust, creating fairly constant lava flows.

ANSWER: hotspots

(11) This company's president is Hidetaka Miyazaki, a game designer who is credited with creating the defining games of a genre that focuses on punishing gameplay in a gritty, medieval setting. For ten points each,

Name this Japanese game company behind *Armored Core* and *Elden Ring*.

ANSWER: FromSoftware

Players battle Saint Aldrich and Prince Lothric in the third entry of this notoriously difficult FromSoftware medieval action-RPG series that began in 2009.

ANSWER: Souls (accept Dark Souls I, II, or III; accept Demon's Souls)

The *Souls* series spawned a generation of "Souls-like" games, including this FromSoftware game in which the city of Yharnam is beset by a mysterious illness that transforms people infected with it into monstrous beasts.

ANSWER: Bloodborne

(12) The qibla [kee-blah], the direction Muslims should face to pray, points toward the Kaaba in this city. For ten points each,

Name this Saudi Arabian city, the birthplace of Muhammad.

ANSWER: Mecca (accept Makkah)

Any Muslim who is both financially and physically able is expected to perform this pilgrimage to Mecca at least once in their life. During this pilgrimage, Muslims circle the Kaaba and perform the metaphorical Stoning of the Devil.

ANSWER: Hajj

According to the Quran, this prophet and ancestor of Muhammad helped build the Kaaba with his father, Ibrahim.

ANSWER: Ismail (accept Ishmael)

(13) This novel's title character avoids humans who remind him of Yahoos, and instead prefers to talk to creatures that remind him of the wise and dignified Houyhnhnms [h-WIN-hims]. For ten points each,

Name this satirical adventure novel by Jonathan Swift that describes the title man's adventures in strange countries like Lilliput, which is populated by six-inch-tall humans.

ANSWER: Gulliver's Travels (accept Travels into Several Remote Nations of the World, In Four Parts, by Lemuel Gulliver, First a Surgeon, and then a Captain of Several Ships)

Gulliver's adventures in Lilliput take up the first part of *Gulliver's Travels*. In the second part, Gulliver ends up in Brobdingnag, a country whose inhabitants have this trait, and where Gulliver is kept as a pet in a cage.

ANSWER: giant (accept descriptions like they are tall)

To console himself for having to leave the land of the Houyhnhnms, Gulliver purchases two of these animals, and talks to them for hours each day in their stables.

ANSWER: horses (accept stone-horses)

(14) Answer the following about a defunct Cabinet position, for ten points each.

This member of Franklin Pierce's cabinet later became the first and only president of the Confederate States of America.

ANSWER: Jefferson **Davis** (accept Jefferson Finis **Davis**)

Prior to defecting, Jefferson Davis held this now-defunct Cabinet position, which was replaced by the Secretary of Defense in 1947.

ANSWER: Secretary of **War**

The first Secretary of War was this general of the American Revolutionary War, who crossed the Delaware River alongside George Washington.

ANSWER: Henry **Knox**

(15) By placing a thermometer next to the color spectrum produced by a prism, Sir William Herschel discovered this form of radiation. For ten points each,

Name this type of radiation with wavelengths just longer than visible light. About half of the solar energy that reaches Earth is this form, commonly referred to as "heat radiation."

ANSWER: **infrared** radiation (accept **IR** radiation)

This type of radiation with wavelengths between one millimeter and one meter is near infrared on the EM spectrum. These waves are especially good at exciting water molecules in their namesake cooking device.

ANSWER: **microwaves** (accept **microwave** radiation)

Microwaves have largely supplanted radio waves in this technology that can be used to enforce speed limits, track storms, and monitor for enemy aircraft.

ANSWER: **radar** (accept **radio detection and ranging**)

(16) When it was a French autonomous republic, this country shared its name with one of its official languages, Malagasy [mal-ah-gah-see]. For ten points each,

Name this island country off the east coast of Africa with capital at Antananarivo [ahn-tah-nah-nah-ree-voh].

ANSWER: **Madagascar** (accept Republic of **Madagascar**; accept Repoblikan'i **Madagasikara**)

Madagascar is the only native home of these primates, which spend most of their time in trees. The ring-tailed species of this animal is on the endangered species list due to habitat loss.

ANSWER: **lemurs** (accept ring-tailed **lemurs**)

Lemurs are endemic to Madagascar because the island is separated from mainland Africa by this body of water.

ANSWER: **Mozambique Channel** (accept **Lakandranon'i Mozambika**)

(17) To conduct current, a galvanic cell or battery must possess both an anode and this electrode. For ten points each,

Name this positive electrode where the reduction reaction occurs. This electrode is made of copper in a zinc-copper cell.

ANSWER: cathodes

The Nernst equation can determine the voltage of a zinc-copper cell if these quantities are known for the two ions. This quantity is usually expressed in molarity or moles per liter.

ANSWER: concentrations

To allow flow of ions between the two electrodes, a porous cup or one of these devices may be used. A typical one of these devices is a U-shaped glass tube filled with an electrolyte solution.

ANSWER: salt bridges

(18) Give the following about the Non-Aligned Movement, an organization of countries interested in protecting their interests against both the Soviet-dominated Warsaw Pact and the US-dominated NATO, for ten points each.

The concept of non-alignment was developed by diplomats during discussions in this international body, as countries like India and Yugoslavia refused to contribute to this body's effort to help South Korea during the Korean War. The US is one of five permanent members of this global body's Security Council.

ANSWER: United Nations (accept UN)

The Non-Aligned Movement grew out of the Bandung Conference, a 1955 meeting hosted by President Sukarno on this country's island of Java.

ANSWER: Indonesia (accept Republic of Indonesia; accept Republik Indonesia)

The Non-Aligned Movement was co-founded by, among other leaders, this President of Egypt who led from 1956 to 1970.

ANSWER: Gamal Abdel Nasser (accept Jamal 'Abd al-Nasir; accept Gamal Abdel Nasser Hussein)

(19) Beethoven wrote a set of pieces for this type of ensemble dedicated to Count Razumovsky. For ten points each,

Name this type of chamber ensemble consisting of two violins, a viola, and a cello.

ANSWER: string quartet (prompt on partial answers like "string ensemble")

In addition to being the "father of the symphony," this Austrian composer is considered the "father of the string quartet." This man wrote sixty-eight string quartets, including "Sunrise" and "Emperor."

ANSWER: Joseph Haydn (accept Franz Joseph Haydn)

Mozart wrote a set of six string quartets dedicated to Haydn; the last one in the set is nicknamed for this musical feature. This musical term refers to harmonies that sound harsh or unpleasant.

ANSWER: dissonance (accept word forms like dissonant; accept Dissonance quartet)

(20) This play's protagonist burns Eilert Lovborg's manuscript after driving him to commit suicide. For ten points each,

Name this play in which the title woman, the wife of George Tesman, kills herself while being blackmailed by Judge Brack.

ANSWER: **Hedda Gabler**

Hedda Gabler is set in nineteenth-century Kristiania, a city that was renamed Oslo in 1927. It is the capital of this country, which is also the home nation of the play's author.

ANSWER: **Norway** (accept Kingdom of **Norway**; **Norge** or **Noreg**; accept Kongeriket **Norge**)

This Norwegian playwright wrote *Hedda Gabler*, *The Wild Duck*, and *A Doll's House*.

ANSWER: Henrik **Ibsen** (accept Henrik Johan **Ibsen**)