

Round 7

Justin Abel • Brad Fischer • James Fischer • Pavithr Goli • Mike Laudermith
Jessica Markley • Sophie Netzel • Kristin Strey • Ethan Strombeck • Lana Kay Tutterow
Tyler Vaughan

Tossups

(1) **At a New Jersey train station, this man's older brother Edwin saved the life of a son of this man's victim. Assisting this criminal earned harsh penalties for Doctor Samuel Mudd and boarding-house owner (*) Mary Surratt, who was hanged after housing this man. This man broke his leg by jumping down to the stage during a performance of *Our American Cousin* at Ford's Theater. For ten points, name this actor and Confederate sympathizer who shot and killed Abraham Lincoln.**

ANSWER: John Wilkes Booth

(2) **This musical work is dedicated to Giulietta Guicciardi, and is marked "Quasi una fantasia." Critic Ludwig Rellstab coined this musical work's compared nickname when he compared its constant use of the (*) damper pedal to a night-time reflection on Lake Lucerne. For ten points, name this piano sonata by Ludwig van Beethoven that uses slow, muffled arpeggios to evoke a dreamy night.**

ANSWER: Moonlight Sonata (accept Beethoven's Piano Sonata Number 14; accept Beethoven's Opus 27, Number 2)

(3) **A couple in this novella remove a picture of a woman wearing fur from their son's room and make money by taking in three tenants. A man in this novella accidentally kills his son by lodging an apple in his back when he crawls out of his room to listen to his sister, (*) Grete, playing violin, even though it is difficult to move on his six thin legs. For ten points, name this short novel by Franz Kafka in which Gregor Samsa transforms into a giant insect.**

ANSWER: The Metamorphosis (accept Die Verwandlung)

(4) **These objects title a film about Isak Borg directed by Ingmar Bergman. A printed pattern of these objects covers a 2019 textile artwork by Lirika Matoshi that, in 2020, became the "dress of the summer." With (*) cream, this food is traditionally served at Wimbledon. A Liverpool children's home named for this food provided the title of a Beatles song that celebrates their "Fields Forever." For ten points, in the song "Watermelon Sugar," Harry Styles describes the taste of what fruits "on a summer evening?"**

ANSWER: strawberry (accept Wild Strawberries; accept strawberry dress; accept Strawberry Fields Forever)

(5) **Darwin used this word to describe the “slave” nature of worker ants that care for juveniles. The restlessness of captive-bred sparrows suggests that (*) migration has this quality, as does the fixed-action pattern of geese rolling eggs back to their nests. The palmar grasp reflex of babies is a rare human example of this unlearned type of behavior. For ten points, name this kind of innate behavior that animals know how to perform from birth.**

ANSWER: instinct (accept instinctive behavior; prompt on “innate” before it is read; prompt on “inborn” before “birth” is read)

(6) **This structure contains fifty-six holes nicknamed for John Aubrey, a seventeenth-century historian who claimed that this structure had been built for rituals. Aubrey suggested that this monument was used by (*) druids because parts of this structure align with the summer and winter solstices. For ten points, name this possibly-religious monument on the Salisbury Plain in southwest England, whose main body is composed of a circle of large rocks.**

ANSWER: Stonehenge

(7) **DNA analysis has confirmed that this ruler’s mother is KV-35-YL, also called the Younger Lady. This final monarch of the Eighteenth Dynasty abolished his father’s unpopular worship of (*) Aten. This ruler came to power at the age of nine, shortly after the death of Akhenaten, and died at the age of eighteen. For ten points, name this boy pharaoh whose tomb and elaborate, golden death mask were discovered in the Valley of the Kings by Howard Carter.**

ANSWER: King Tut (accept Tutankhamun)

(8) **In 1833, the Supreme Court ruled that George Wilson could refuse to accept one of these orders from Andrew Jackson. Jimmy Carter issued these for hundreds of thousands of people who dodged the draft during the (*) Vietnam War. In a White House tradition, this action is performed for one turkey per year prior to Thanksgiving. For ten points, name this executive action performed by Gerald Ford for Richard Nixon, which absolves a person accused of a crime.**

ANSWER: presidential pardons (accept granting clemency)

(9) **Celluloid film stock becomes brittle with age because this process affects the camphor within it. “Cold finger” purification begins with this process, which allows iodine crystals to expose latent fingerprints. A curve representing this change is below the (*) triple point on a phase diagram, and its reverse is called deposition. For ten points, name this phase change, seen when dry ice becomes carbon dioxide vapor at room temperature, in which a solid changes directly into gas.**

ANSWER: sublimation (accept word forms like sublimating)

(10) **This novel’s protagonist purchases a coral-and-glass paperweight from Mr Charrington’s shop, where he goes to meet a member of the Anti-Sex League. A character in this novel claims to be aligned with (*) Emmanuel Goldstein and the Brotherhood, but tortures the protagonist in Room 101 of the Ministry of Love with a cage of rats. Julia and O’Brien appear in, for ten points, what dystopian novel about Winston Smith written by George Orwell?**

ANSWER: Nineteen Eighty-Four

(11) **This city contains a sculpture of a warrior queen in a chariot, named *Boadicea and her Daughters* near its legislative offices in Portcullis House. Four lion statues that were made from melted-down (*) French cannons stand in this city’s Trafalgar Square. The treasures of Sutton Hoo, an Anglo-Saxon ship burial, are held in a museum in, for ten points, what city, the home of Westminster Palace and Big Ben, that is the capital of England?**

ANSWER: London

(12) **After an encounter at the Stone Table, a character in this novel uses a “deeper magic from before the dawn of time” to return to life and vanquish a woman who bribes (*) Edmund with Turkish Delight. After defeating the White Witch in this novel, the Pevensie children become kings and queens with the help of the resurrected Aslan. For ten points, name this C.S. Lewis novel in which four siblings travel through a piece of furniture to the land of Narnia.**

ANSWER: The Lion, the Witch, and the Wardrobe

(13) **This quality can be described with Vickers numbers, or with a system that ranks cubic boron nitride just below its highest classification, and places alkali metals near zero. A sclerometer can be used to find this value’s (*) “scratch” form, which is measured on a scale in which talc has a rank of one. For ten points, the Mohs scale ranks diamond as ten on its measure of this property. the ability of a material to resist being scratched or dented.**

ANSWER: hardness (accept scratch hardness; accept Mohs hardness scale; do not accept or prompt on “resilience” or similar terms)

(14) **Description acceptable. J Robert Oppenheimer lost his Q-level security clearance after being accused of having this affiliation. Walt Disney included the Hollywood Ten in a list of employees he suspected of doing this, which he gave to the (*) House Un-American Activities Committee. Joe McCarthy’s “Red Scare” falsely accused people of being members of, for ten points, what political party that dominated the USSR?**

ANSWER: being a communist (accept descriptions like believing in communism or being a member of the Communist party; accept descriptions of being a socialist; do not accept or prompt on “spying”)

(15) **This artist created *Rebellious Slave* and *Dying Slave* for the tomb of Pope Julius II, and signed the sash of a sculpture in which a youthful Mary holds the body of Jesus. A contrapposto nude sculpture holding a slingshot and *The (*) Creation of Adam* are works by this sculptor of the *Pietà*. For ten points, name this Italian Renaissance artist who sculpted a marble *David* and painted the ceiling of the Sistine Chapel.**

ANSWER: Michelangelo (accept Michelangelo di Lodovico Buonarroti Simoni)

(16) **A physicist from this country developed the “path integral” formulation of quantum mechanics. Photon scattering by charged particles was first detected in this country, where BCS super-conductivity theory was discovered. The (*) Michelson-Morley experiment was performed in this nation at a facility that became Case Western Reserve University. For ten points, name this country where Enrico Fermi built a nuclear reactor at the University of Chicago.**

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

(17) The “Wicked Bible” is nicknamed for containing a misprint of this legal text. The first copy of this text was destroyed by the man who received them after he saw his people (*) worshipping a golden calf, and the second copy was kept in the Ark of the Covenant. Moses’s face shone with glory after he received, for ten points, what set of laws that forbids “graven images” and commands “thou shalt not kill?”

ANSWER: **Ten Commandments** (accept **Decalogue**; accept **Aseret ha’Dibrot**; prompt on “commandments;” prompt on “Dibrot;” prompt on “Bible,” “Old Testament,” “Pentateuch” or “(Book of) Exodus” before “sapphire” is read; Note: The “Wicked Bible” accidentally printed “Thou shalt commit adultery”)

(18) These mathematical objects are described as secants [SEE-kants] if they intersect a curve at two points, or as tangents if they intersect a curve at one point. Euclid used the term (*) “breadth-less length” to describe these objects, which can be created by joining two opposite rays. Segments are finite sections of, for ten points, what one-dimensional geometric objects that have infinite length?

ANSWER: **lines** (accept intersecting **lines**; do not accept or prompt on “line segment”)

(19) This country surrendered Silesia to Frederick the Great’s Prussia in a conflict that ended with the Treaty of Aix-la-Chapelle [“eye”-lah-shah-pell] and began with the Pragmatic Sanction. The “War of [this country’s] Succession” resulted in the rule of (*) Archduchess Maria Theresa in this country that, under Frans Joseph I, merged with Hungary. For ten points, name this European country ruled by the Habsburgs from Vienna.

ANSWER: **Austria** (accept **Österreich**; accept **Austrian** Empire or Kaisertum **Österreich**; accept **Austria-Hungary** or **Austro-Hungarian** Empire after “Hungary” is read)

(20) This author wrote a story in which John Unger escapes from Percy Washington’s mansion, which is built on top of an enormous gem. In another story by this author, Marjorie goads her cousin into getting a haircut. This author of “The (*) Diamond as Big as the Ritz” and “Bernice Bobs Her Hair” wrote a novel in which Nick Carraway and his cousin, Daisy Buchanan, attend lavish parties in West Egg. For ten points, name this American author of *The Great Gatsby*.

ANSWER: F. Scott **Fitzgerald** (accept Francis Scott Key **Fitzgerald**)

Bonuses

(1) This author wrote about the fictional science fiction writer Kilgore Trout in novels like *Timequake* and *God Bless You, Mr Rosewater*. For ten points each,

Name this American author of *Breakfast of Champions* and a novel in which Billy Pilgrim becomes “unstuck in time.”

ANSWER: Kurt **Vonnegut, Jr.**

Billy Pilgrim shifts through time in this novel, which bounces from the firebombing of Dresden to Billy’s life with his wife Valencia, to his capture by Tralfamadorian aliens.

ANSWER: **Slaughterhouse-Five**, or *The Children’s Crusade: A Duty-Dance with Death*

Slaughterhouse-Five is named for the building where Billy is kept as a prisoner during this war. Billy is captured by the Germans at the Battle of the Bulge in this war.

ANSWER: **World War II** (accept equivalents like **second world war**)

(2) Pliny the Younger wrote an account of how he fled the destruction of this city and how his uncle, Pliny the Elder, didn’t escape. For ten points each,

Name this city that was destroyed by the eruption of Mount Vesuvius, burying its citizens under a thick layer of ash.

ANSWER: **Pompeii**

Many walls in the ruins of ancient Pompeii are covered in these messages; for example, two men named Gaius and Aulus announced that they “were here” with this illicit type of wall art.

ANSWER: **graffiti** (accept **graffito**)

Like Pompeii, this rich seaside city was destroyed and well preserved by Vesuvius’s ash. The Villa of the Papyri can be found in this city’s ruins.

ANSWER: **Herculaneum**

(3) This body’s phases include “waxing crescent” and “waning gibbous.” For ten points each,

Identify this natural satellite of Earth that experiences a cycle of “new,” “quarter,” and “full” phases about once every thirty days.

ANSWER: Earth’s **moon** (accept **Luna**)

In 1610, Galileo described the moon-like phases of this planet, and concluded they could only be possible in a heliocentric solar system. This planet’s orbit and phase cycle take about two hundred twenty-five days.

ANSWER: **Venus**

Venus in its “new” phase looks larger than a “full” Venus because of the inferior type of this event, in which Earth, Venus, and the Sun form a straight line. Eclipses may take place during these events.

ANSWER: inferior **conjunction** (accept **syzygy**)

(4) This country shares the highest lake in the world, Lake Titi-caca, with Bolivia. For ten points each,

Name this South American country whose capital was moved from this country's archaeological site of Vitcos to its modern capital, Lima, after the Spanish invaded the Incan Empire.

ANSWER: Peru (accept Republic of Peru; accept República del Perú)

Prior to Spanish colonization of what is now Peru, it contained Incan cultural centers like Vitcos, Cuzco, and this mountainous city explored by Hiram Bingham.

ANSWER: Machu Picchu

Machu Picchu [mah-choo pee-choo] is located in this mountain range, the longest continental range on Earth, which stretches down the western side of South America.

ANSWER: Andes Mountains

(5) Johannes Kepler conjectured that a cubic packing and a hexagonal packing of these objects were tied as the most efficient method of packing them. For ten points each,

Name these three-dimensional objects whose volume is given by the formula “four-thirds, times pi, times the radius cubed.”

ANSWER: spheres (accept balls)

Because they are perfectly round, spheres have none of these points that are formed by the meeting of two or more edges.

ANSWER: vertex (accept vertices; prompt on “corners” or “angles”)

Archimedes calculated that, if a sphere is inscribed within one of these shapes, the sphere's volume will be two-thirds the volume of this shape.

ANSWER: cylinder

(6) Answer the following about operas by Wolfgang Amadeus Mozart, for ten points each.

In an opera named for one of these instruments, the Queen of the Night gives Pamina a knife and Tamino a “magic” one of these instruments to get revenge on the priest Sarastro.

ANSWER: flute (accept The Magic Flute or Die Zauberflöte)

In Mozart's opera *Don Giovanni*, the seductive protagonist is visited by the Commendatore, the ghostly father of one of his romantic conquests, who drags him off to hell by possessing one of these objects.

ANSWER: statues (accept sculptures; accept statue of the Commendatore)

This misogynistic comic opera is about two men who lose a bet when they seduce their fiancées while in disguise. The title of this opera translates loosely as “all women are like that.”

ANSWER: Così fan tutte (accept Così fan tutte, ossia la scuola degli amanti)

(7) A novel by this author follows seven generations of the Buendía family in their hometown of Macondo. For ten points each,

Name this author of *One Hundred Years of Solitude*. Because his name is Spanish, he has two surnames, the first inherited from his father and the second from his mother; therefore, the first of his two last names is required.

ANSWER: Gabriel **García** Márquez (prompt on “Márquez”)

Gabriel García Márquez is from this South American country, where *One Hundred Years of Solitude* is set. Its capital is Bogotá.

ANSWER: **Colombia** (accept Republic of **Colombia** or República de **Colombia**)

The seventh generation of the Buendía family is made up entirely of a baby boy, Aureliano, who has the tail of one of these animals. In the novel *Charlotte’s Web*, Wilbur is one of these animals.

ANSWER: **pig** (accept equivalents like **swine**)

(8) Activism groups, such as the Society for Human Rights and the Mattachine Society, typically avoided using this word in their names until 1969. For ten points each,

Give this term, the “G” in “LGBT.”

ANSWER: **gay** (do not accept or prompt on other terms, like “homosexual”)

On June 28, 1969, police raided this Mafia-owned gay bar in Greenwich Village in New York. The ensuing anti-police riot catalyzed the gay rights movement and led to the formation of the Gay Liberation Front.

ANSWER: **Stonewall** Inn (accept descriptions like **Stonewall** riots or **Stonewall** uprising)

One year after Stonewall, the first of these public events took place. These events celebrate the progress of the LGBT community and often feature people waving rainbow flags as they march down streets.

ANSWER: **Pride** parades (accept additional information, such as **Gay Pride** parades; prompt on partial answers)

(9) To supplement your college fund, you’ve decided to become an organic tomato farmer. Answer these horticultural questions, for ten points each.

You can use compost or manure as an organic one of these nutrient supplements for your crop. These substances should contain sufficient levels of nitrogen, phosphorus, and potassium.

ANSWER: **fertilizer** (prompt on “plant food”)

If your leaves turn yellow, it’s a good bet that the soil is deficient in magnesium, a necessary component of this plant pigment.

ANSWER: **chlorophyll**

Fortunately, you no longer have to worry about convincing customers that tomatoes are edible, unlike their relatives henbane and belladonna in this plant family.

ANSWER: **nightshade** (accept **Solanaceae**)

(10) This religion's Ise Grand Shrine [ee-say grand shrine] is rebuilt every twenty years, and is said to hold the sacred mirror used to lure Amaterasu [ah-mah-tay-rah-soo] out of a cave. For ten points each,

Name this native religion of Japan that believes all things have a spiritual energy called kami [kah-mee].

ANSWER: Shintoism (accept kami-no-michi [kah-mee-noh-mee-chee])

These red gates are found outside of Shinto shrines, and mark the boundary between the everyday world and the sacred world.

ANSWER: torii [toh-ree]

These animals are the messengers of Inari [ee-nah-ree], one of the principal kami. In Shinto, these animals can have up to nine tails, each one indicating their level of wisdom.

ANSWER: foxes (accept kitsune [kit-soo-nay])

(11) This novel's protagonist is horrified to discover a corpse dressed in a blue uniform like his own while he flees from battle. For ten points each,

Name this novel in which Henry Fleming witnesses the death of Jim Conklin and other Union soldiers, and comes to regret his desire for the title mark of valor.

ANSWER: The Red Badge of Courage

The Red Badge of Courage is set during this war. In Ambrose Bierce's "An Occurrence at Owl Creek Bridge," Payton Farquhar is executed for supporting the Confederacy in this war.

ANSWER: American Civil War

This author of *The Red Badge of Courage* also wrote *Maggie: A Girl of the Streets* and "The Bride Comes to Yellow Sky."

ANSWER: Stephen Crane

(12) The background of this painting includes a red-curtained bed and a chandelier with one candle in it. For ten points each,

Name this painting by Jan van Eyck [yahn van "eye"k], in which an Italian merchant in an enormous, black hat stands next to his wife, who wears a sumptuous green dress.

ANSWER: The Arnolfini Wedding (accept The Arnolfini Portrait; accept Giovanni Arnolfini and his Bride; accept any description including the name Arnolfini and the idea of marriage)

The background of *The Arnolfini Wedding* includes an incredibly detailed, convex one of these decorations, surrounded by ten illustrations of the stations of the cross.

ANSWER: convex mirror

In the painting, a small one of these animals stands at the feet of the couple to represent loyalty. Diego Velázquez's painting *Las Meninas*, includes a large mastiff, one of these domestic animals.

ANSWER: dogs

(13) Give the following about 2021's *The Matrix Resurrections*, for ten points each.

This actor returns to the franchise as Neo. Popular supercuts of this actor's work in film franchises like *John Wick* and the *Bill and Ted* films often focus on him saying "Whoa."

ANSWER: Keanu **Reeves** (accept Keanu Charles **Reeves**)

The Matrix was created by a pair of filmmaking sisters with this last name. Lana, but not Lilly, returns to direct *The Matrix Resurrections*.

ANSWER: **Wachowskis** (accept **Wachowski** sisters; accept Lana and/or Lilly **Wachowski**)

New to the *Matrix* series is Jonathan Groff, who originated the *Hamilton* role of King George III on Broadway, and who voices Kristoff in this Disney franchise.

ANSWER: **Frozen**

(14) Though it is perhaps not its most famous application, formaldehyde is mainly used to make resins for products like particle board and laminate flooring. Answer these questions about its chemistry, for ten points each.

Formaldehyde is classified as this type of compound, along with benzene and sugar, because it contains carbon and is produced by cellular reactions.

ANSWER: **organic** compound

Formaldehyde is synthesized industrially by the oxidation of this simplest alcohol with formula CH_3OH [C-H-3-O-H].

ANSWER: **methanol** (accept **methyl** alcohol; accept **wood** alcohol)

Formaldehyde has traditionally been a major component of the fluid injected into a body during this process that fixes tissues and slows decomposition by microorganisms.

ANSWER: **embalming** (accept word forms like **embalms**)

(15) This poet's rivalry with John Keats was so intense that he used the poem *Don Juan* [don JOO-an] to mock him after death, claiming that Keats had died from reading a bad review of his work instead of from tuberculosis. For ten points each,

Name this English Romantic poet. Keats was convinced that this nobleman had bought good reviews for works like *Childe Harold's Pilgrimage*.

ANSWER: Lord **Byron** (accept George Gordon, Lord **Byron**; accept George Gordon Noel Byron, sixth **Baron Byron**)

Keats wrote many of his own poems in this poetic style, in which the author directly addresses a subject. Keats wrote poems of this type "on a Grecian Urn" and "to a Nightingale."

ANSWER: **odes** (accept **Ode on a Grecian Urn**; accept **Ode to a Nightingale**)

Byron died in Missolonghi, and became a national hero during this country's war of independence. This Mediterranean country is led from Athens.

ANSWER: **Greece** (accept **Hellenic** Republic; accept **Elladá** or **Hellas**; accept **Ellinikí** Dimokratía)

(16) Answer these questions about Heracles' twelve labors, for ten points each.

The first labor was to kill this animal from Nemea, whose golden fur was impenetrable to arrows. After strangling this creature, Heracles used one of its own claws to skin its pelt, which he used as armor.

ANSWER: Nemean lion

For his ninth labor, Heracles traveled to Themyscira [them-mes-skee-rah] to get the belt of this queen of the Amazons.

ANSWER: Hippolyta (accept Hippolyte; do not accept "Hippolytus")

In his final labor, Heracles had to capture this three-headed beast that guards the gates of Hades.

ANSWER: Cerberus (accept Kerberos)

(17) In July 1990, this country was accused of slant drilling into the Rumaila oil field; a month later, this country was invaded. For ten points each,

Name this Middle Eastern country. American forces supported this occupied country during the First Gulf War.

ANSWER: Kuwait (accept State of Kuwait or Dawlat al-Kuwayt)

Kuwait's oil infrastructure was heavily damaged in the First Gulf War after it was invaded by this neighboring country, which was led at the time by Saddam Hussein from Baghdad.

ANSWER: Iraq (accept Republic of Iraq or Jumhuriyah al-'Iraq)

During the Gulf War, the US effort was largely staged from this southern neighbor of Kuwait. This largest country in the Middle East controls much of the region's shipping, as it is the only country with shorelines on both the Persian Gulf and the Red Sea.

ANSWER: Saudi Arabia (accept Kingdom of Saudi Arabia or KSA; accept Al-Mamlakah al-'Arabiyah as-Sa'udiyah)

(18) The adiabatic index and the propagation constant are among the many quantities in physics represented by a lowercase Greek letter gamma. Answer these questions about its other uses, for ten points each.

Small gamma also represents specific weight, a quantity equal to density times this number. This is the value of gravitational acceleration in meters per second squared at Earth's surface, rounded to one decimal place.

ANSWER: 9.8 m/s² [meters per second squared] (accept 9.8 m/s/s [meters per second per second])

On a Feynman diagram, a small gamma and a wavy line represent one of these particles that carry the electromagnetic force and are the basic units of light.

ANSWER: photons

In special relativity, small gamma represents a factor named for this Dutch physicist. This man's namesake factor is used in calculations of time dilation and length contraction.

ANSWER: Hendrik Lorentz (accept Hendrik(us) Albertus Lorentz; accept Lorentz factor)

(19) Give the following about 2021 electoral efforts that have been derided as wasteful, for ten points each.

This country's Prime Minister, Justin Trudeau, called for a snap election in September. Only twenty-four of three hundred thirty-eight seats changed parties in the election, which cost this country over six hundred million dollars.

ANSWER: **Canada**

Republican efforts to recount the 2020 Presidential election in Maricopa County in this southwestern state concluded in September and found that Joe Biden won the state by even more votes than previously indicated.

ANSWER: **Arizona**

On September 14th, polls closed in the election to recall this Governor of California. The effort to recall this man failed by more than three million votes and cost roughly three hundred million dollars.

ANSWER: Gavin **Newsom** (accept Gavin Christopher **Newsom**)

(20) Give the following about the Adams family for ten points each.

John Adams was married to this early feminist, who advised him to "remember the ladies" in one of their numerous correspondences.

ANSWER: **Abigail** Adams (accept **Abigail** Smith Adams)

John Adams was a member of this political faction that pushed for the newly-founded America to have a strong central government. Adams was the only man elected President from this political party.

ANSWER: **Federalists** (accept **Federalist** Party)

John Adams's cousin Samuel led the Sons of Liberty in this raid on three merchant ships, the *Eleanor*, *Beaver*, and *Dartmouth*.

ANSWER: **Boston Tea Party**