

Round 11

Brad Fischer • Charlotte Maher • Adam Silverman • Kristin Strey

Tossups

(1) **A character in this play hopes for “the most wonderful thing of all,” but is disappointed by a woman he had diminutively called a “little song-bird.” This play’s protagonist is blackmailed when she borrows money from (*) Krogstad. Kristine Lund visits this play’s protagonist, who ends the play by slamming a door behind her. For ten points, name this Henrik Ibsen play in which Nora Helmer leaves her husband, Torvald, and symbolically abandons the title toy home.**

ANSWER: A Doll’s House (accept Et dukkehjem)

(2) **Ethers are isomers of these compounds, which are only found in the side chains of three amino acids: serine, threonine, and tyrosine. The active ingredients of antifreeze and hand sanitizer are this type of organic molecule, in which an (*) oxygen atom is single bonded to a hydrogen. Examples of these compounds with one and three carbons are known as “wood” and “rubbing,” respectively. For ten points, name this type of compound whose simplest examples are methanol and ethanol.**

ANSWER: alcohols

(3) **On the right of this painting, two figures lean toward Simon the Zealot, gesturing wildly. Because this mural is not a fresco, it requires frequent maintenance to preserve it on the wall of the Stanza (*) Maria delle Grazie. This painting’s figures are arranged in groups of three, with Peter and John sitting next to Judas. For ten points, name this painting by Leonardo da Vinci in which the disciples react in shock as Jesus spreads his arms over their final meal together.**

ANSWER: The Last Supper (accept l’Ultima Cena)

(4) **Management at Morton Thiokol decided not to stop this event, which ultimately prevented a study of Halley’s Comet. Sally Ride served on the Rogers Commission investigating this event, as did (*) Richard Feynman, who used a glass of ice water and a piece of rubber to demonstrate how the O-rings may have failed. Christa McAuliffe, a teacher, was one of the seven casualties of, for ten points, what 1986 disaster that took place 73 seconds after the launch of a Space Shuttle?**

ANSWER: Space Shuttle Challenger disaster (accept descriptive answers that name the Challenger, such as “Challenger explosion”; prompt on “Space Shuttle disaster” or similar before “Space Shuttle” is read)

(5) **This religion’s central text emphasizes the “Three Treasures” of compassion, simplicity, and humility, and is attributed to a contemporary of (*) Confucius.** This religion is represented by the ba-gua, which represents the balance of yin and yang. This religion’s principle of “action through inaction,” or “wu-wei,” was established by this religion’s founder, Laozi [LAHW-tshuh]. For ten points, name this belief system whose name is Mandarin for “the way.”

ANSWER: Tao (accept Dao; accept Daoism and word forms like Daoist)

(6) **A king of this name was targeted by the last Jacobite rebellion. During the reign of the first ruler of this name, Robert Walpole began his *de facto* tenure as Britain’s first Prime Minister. The most recent monarch of this name underwent (*) speech therapy and led England through World War II.** Porphyrria [por-FEE-ree-uh] may have caused the madness of the third king to share, for ten points, what name held by six Kings of England, including the one who lost the American Revolution?

ANSWER: George (accept George II; accept George I after “first” is read; accept George VI after “most recent” is read; accept George III after “Porphyria” is read)

(7) **In October 2022, a planned fanwork for this game series removed a zombie Queen Elizabeth from a game set in London instead of the US. Recurring characters in this series include Liberty Prime from the (*) Brotherhood of Steel and the canine companion Dogmeat.** Spin-offs in this game series include the unpopular entry 76 and the highly successful *New Vegas*. For ten points, name this Bethesda game series in which vaults hold survivors of a nuclear war.

ANSWER: Fallout (accept Fallout: London; accept Fallout 76; accept Fallout: New Vegas)

(8) **A character created by this author attends Bourton school, where she kisses Sally Seton, and makes her first appearance in the novel *The Voyage Out*. In a novel by this author, (*) Septimus Smith jumps out of a window.** In another novel, this writer described the struggles of the Ramsay family before and after the first world war. For ten points, name this English author of *Mrs Dalloway* and *To the Lighthouse*.

ANSWER: Virginia Woolf (accept Adeline Virginia Woolf; accept Adeline Virginia Stephen)

(9) **The largest of these events is blamed on the eruption of carbon dioxide from Siberian traps. The ongoing “Holocene” one of these events is being caused by humans. A gigantic (*) crater on the Yucatan Peninsula lends credence to a theory that one of these events was caused by an asteroid.** The ends of the Permian and Cretaceous eras were marked by, for ten points, what destructive events that killed off many species at once?

ANSWER: mass extinctions (accept any specific extinction event; accept Great Dying; accept extinction of the dinosaurs)

(10) **A landmark book in this field coined the phrase “personality writ large”, drawing a comparison between people and society. This field was shaped in the 20th century by scholars like Ruth (*) Benedict and Margaret Mead, who wrote *Coming of Age in Samoa* and *Patterns of Culture*, respectively.** In high schools, sociology is often studied alongside, for ten points, what study of behavior and culture whose name is Greek for “human study”?

ANSWER: anthropology

(11) **A god in this culture, Ometeotl [oh-MEH-tay-oh-tull] split into two gods to create the world. A heroic god in this culture used the bones of previous humans and his own blood to create the (*) Fifth Sun after journeying through Mictlan. This culture venerated a “Left-Handed Hummingbird” and a “Feathered Serpent” named Huitzilopochtli [HWEE-tsih-loh-POCK-tee] and Quetzalcoatl [KET-zahl-koh-ah-tull]. For ten points, name this culture whose myths included the story of the founding of Tenochtitlan [teh-NOSH-tiht-lahn] in modern Mexico City.**

ANSWER: Aztecs (accept Aztec empire; prompt on “Mexica” or “Mexicatl;” prompt on “Nahua” or “Nahuatl”)

(12) **In this city, Sir Edwin Lutyens developed a Bungalow Zone for the British in the early 20th century. After the Battle of Karnal, the looting of this nearby city included the capture of the Koh-i-Noor diamond and the Peacock Throne. The Lahori Gate is the main entrance to this city’s Red Fort, which became the imperial residence of the (*) Mughals under Shah Jahan. Prior to 1911, Calcutta held this city’s primary status. For ten points, name this city whose “New” district is the capital of India.**

ANSWER: Delhi (accept New Delhi; accept (Old) Delhi)

(13) **In a play by this author, a group of characters leave a house “until spring,” and accidentally leave Fiers locked inside. In another play by this writer, Nina rejects Konstantin Treplev, who shoots the title bird, in favor of (*) Trigorin. This man wrote a play in which Lopakhin buys property from Madame Ranevskaya and orders the destruction of the title grove of trees. For ten points, name this Russian playwright who wrote *The Seagull* and *The Cherry Orchard*.**

ANSWER: Anton Chekhov (accept Anton Pavlovich Chekhov)

(14) **Velocimetry of blood-flow works because of this effect. which predicts a “shift” that depends on the ratio in two differences in speed. The relativistic form of this effect causes a redshift due to the expansion of the (*) universe. This effect occurs when wavefronts appear closer together for an observer if they are moving towards a source. For ten points, name this effect that explains why an ambulance siren seems to change pitch.**

ANSWER: Doppler effect

(15) **After Alexander the Great routed this empire at Gaugemela, its leader was murdered by Bessus, a satrap who then briefly held power. The Achaemenid [uh-KEY-men-id] Empire is an alternative name for this empire, which was Alexander’s target after he gained control of (*) Greece. Artaxerxes V [art-uh-zerk-zees the fifth] and Darius III were late leaders of, for ten points, what west Asian empire that earlier fought the Greeks at Thermopylae and Marathon and was based in modern Iran?**

ANSWER: Persia (accept Persian Empire; accept Achaemenid Empire or Achaemenids until “Achaemenid” is read)

(16) **A lyricist with this last name contrasted “oysters” and “ersters” in the song “Let’s Call the Whole Thing Off,” written for the film *Shall We Dance?* The song “Summertime” was co-written by that lyricist and composed by (*) another artist with this last name for the opera *Porgy and Bess*. Jazz standards like “I Got Rhythm” were the product of, for ten points, what pair of brothers that included Ira and the composer of *Rhapsody in Blue*, George?**

ANSWER: Gershwin (accept Ira and/or George Gershwin; accept Israel Gershovitz; accept Jacob Gershwine)

(17) **The cross product operation commonly exists in three dimensions and in this many dimensions, but no other systems. Euler [oiler] invented graph theory by studying this many bridges in Konigsberg. The regular polygon with this many sides has interior angles measuring roughly (*) 128 degrees. One-sixth of the time, rolling two common six-sided dice will give this value, the most likely outcome. The number of sides of a heptagon is, for ten points, what largest single-digit prime number?**

ANSWER: seven

(18) **While serving the 54th Massachusetts Regiment, this figure is said to have served Robert Gould Shaw his last meal before Gould died assaulting Fort Wagner. A month earlier, almost 800 people were freed in raids along the (*) Combahee River co-planned by this woman, who led numerous groups across the Ohio River. "Moses" was the nickname of, for ten points, what escaped slave who proclaimed she never lost a soul while conducting others along the Underground Railroad?**

ANSWER: Harriet Tubman (accept Araminta Ross)

(19) **This author created a character who watches his father perform a C-section on a Native American woman, and who is tied up by Ole Andersen's murderers in "Indian Camp" and "The Killers." In addition to the (*) Nick Adams stories, this author wrote about Jake Barnes living in 1920s Europe and about Santiago, and unfortunate fisherman. For ten points, name this American author of *The Sun Also Rises* and *The Old Man and the Sea*.**

ANSWER: Ernest Hemingway (accept Ernest Miller Hemingway)

(20) **The exponential atmosphere model predicts that this quantity decays exponentially, not linearly, with height. Devices that measure this quantity consist of a glass tube suspended in a reservoir, and consequently often measure it in (*) millimeters. Winds move in the direction where this quantity decreases, which is why storms often develop in areas where it's low. For ten points, name this quantity that is approximately 101 kilopascals, or 1 atmosphere, at sea level.**

ANSWER: atmospheric pressure (or barometric pressure)

Bonuses

(1) Name some types of humanoid creatures with animal attributes from Greek myth, for ten points each.

One of these creatures, Chiron, taught both Jason and Achilles. Chiron was unusual among these creatures because his front pair of feet were often depicted as human, and only his back two feet were horse hoofs.

ANSWER: centaur (accept kentauros)

Naiads and dryads were two types of these feminine nature spirits. Echo was one of these creatures.

ANSWER: nymph (accept nymphē)

In art, nymphs have often been depicted frolicking with these masculine nature spirits that had the ears and legs of goats, similar to the god Pan.

ANSWER: satyr (accept satyros; accept faun; accept silenos)

(2) Former Prime Minister of Pakistan Benazir Bhutto became the victim of this crime in December 2007, leaving her son, Bilawal Zardari, as her political successor. For ten points each,

Name this criminal-political action that was committed against Bhutto by someone using both a gun and a shrapnel bomb.

ANSWER: assassination (accept word forms like assassinate; accept equivalents like murdering or killing a head of state)

This politician was succeeded as Prime Minister by her son, Rajiv, after her assassination in 1984. This leader was assassinated by her bodyguards after her attack on the Golden Pavilion of Amritsar in her home country.

ANSWER: Indira Gandhi (both underlined parts required; accept Indira Priyadarshini Gandhi with both underlined parts required; prompt on “Gandhi” alone)

Gandhi’s bodyguards-turned-assassins were members of this religion. The Golden Temple is this religion’s central gurdwara.

ANSWER: Sikh (accept Sikhi; accept believers in Sikhism)

(3) These chemicals are usually either lipids, such as testosterone, or proteins, such as insulin. For ten points each,

Name these chemical signals used throughout the endocrine system.

ANSWER: hormones

Most of the hormones produced by this gland found in the base of the brain, such as HGH and FSH, are proteins.

ANSWER: pituitary gland

This peptide hormone is made in the hypothalamus but secreted by the posterior pituitary. This “love hormone” is responsible for the evolutionarily useful process of social bonding between parents and their newborns.

ANSWER: oxytocin

(4) This novel's protagonist romantically pursues Léon Dupuis and Rodolphe Boulanger [roh-DOLF boo-lawn-JAY] to distract from her boring life with Charles. For ten points each,

Name this novel by Gustave Flaubert [goo-STAHV floh-BAYR] about Emma, a frustrated woman who tries to become independent of her country doctor husband.

ANSWER: Madame Bovary

To give her time for her affair with Léon, Emma Bovary pretends to take lessons in this instrument. In Kate Chopin's *The Awakening*, Edna is entranced to pursue her own independence by the chords Mademoiselle Reisz plays with this instrument's keys.

ANSWER: piano (accept pianoforte or fortepiano; accept specific answers like grand piano)

Both *Madame Bovary* and *The Awakening* end tragically, with their protagonists performing this general action.

ANSWER: killing themselves (accept synonyms like suicide; accept specific types, since Emma drinks poison and Edna drowns)

(5) In addition to painting landscapes, J.M.W. Turner was known for painting these vessels, such as one being "tugged to her last berth," *The Fighting Temeraire*. For ten points each,

Name these subjects of nautical paintings.

ANSWER: ships (accept boats; accept specific types, like steamships, warships, sailboats, etc.)

In a massive oil canvas on display at the Louvre, Théodore Géricault depicted one of these decidedly less seaworthy objects carrying the survivors of the wrecked *Medusa*.

ANSWER: rafts (accept The Raft of the Medusa; accept Le Radeau de la Méduse)

A Black fisherman braces himself in a small boat in choppy, shark-infested waters in this 1899 painting by Winslow Homer.

ANSWER: The Gulf Stream

(6) Harper Lee modeled the character of Dill Harris on this eccentric author, who was her childhood friend growing up in Alabama. For ten points each,

Name this man who wrote *Other Voices, Other Rooms* and a novel about Holly Golightly.

ANSWER: Truman Capote (accept Truman Streckfus Persons)

Harper Lee helped Truman Capote [kah-POH-tee] collect notes for his non-fiction novel *In Cold Blood*, which chronicles a 1959 home invasion that culminated in this crime, which destroyed the Cutter family.

ANSWER: murder (accept elaborations like mass murder; accept synonyms like killing them)

In this other novel by Truman Capote, Holly Golightly is a society girl who earns a living by socializing with wealthy New Yorkers. In a 1960s film adaptation of this novel, Holly is played by Audrey Hepburn.

ANSWER: Breakfast at Tiffany's

(7) The idea of using this substance to turn a turbine is centuries old, but it took until the 1700s for its power to be unleashed. For ten points each,

Name this superheated water vapor that, beginning in the 18th century, was used to power engines that pumped water and powered ships, sparking the Industrial Revolution.

ANSWER: steam (accept steam engine)

Thomas Newcomen created the first properly functional *and* practical steam engine, but this Scotsman often gets credit for “inventing” the steam engine because his condenser improved immensely on Newcomen’s design.

ANSWER: James Watt

Steam engines and modern combustion engines each create rotational power from the back-and-forth motion of these parts. A modern V-8 engine has one of these parts within each of the eight cylinders.

ANSWER: pistons

(8) Give the following about the history of getting your stuff to you, for ten points each.

The US Postal Service is led by the Postmaster General, a post whose first holder was this founding father and inventor of the lightning rod.

ANSWER: Benjamin Franklin

This short-lived service promised that its riders would bring mail between Missouri and California in less than two weeks. Maintaining stables was expensive, so this service quickly folded after the invention of the telegraph.

ANSWER: Pony Express

The Pony Express’ assets, including its logo, were sold to this stagecoach company for use in its armored car service. Today, this company exists as one of America’s “Big Four” banks, and it came under scrutiny in 2016 for fraudulently creating accounts for, and charging fees to, its customers.

ANSWER: Wells Fargo and Company (accept Wells Fargo Bank)

(9) In a common misconception, *An Essay Concerning Human Understanding* never actually uses this term, preferring the phrase “white paper” instead. For ten points each,

Give this term for the status of the mind at birth, according to philosophers who oppose innatism [in-NATE-ism]. We’re looking for a two-word term in either Latin or English.

ANSWER: tabula rasa (accept blank slate)

An Essay Concerning Human Understanding was written by this English Enlightenment philosopher, who inspired the Declaration of Independence with a theory about the importance of “life, liberty, and estate.”

ANSWER: John Locke

Studies of identical twins often attempt to answer the debate of “[this concept] versus nurture.” Pro-*tabula rasa* philosophers like Locke would generally take the “nurture” side, while innatists would take this side.

ANSWER: nature (accept “nature versus nurture”)

(10) A 2021 tweet jokes that this athlete constantly does things that haven't been done since "Tungsten Arm" O'Doyle of the 1921 Akron Groomsman," but his team loses anyway. For ten points each,

Name this 2021 AL MVP, a Los Angeles Angel who is developing a case as the greatest baseball player of all time due to his prowess at both hitting and pitching.

ANSWER: Shohei **Ohtani**

Ohtani isn't favored to win the the 2022 MVP award because Yankees slugger Aaron Judge broke an AL record by amassing 62 of these impressive hits.

ANSWER: **home runs** (accept **homers**; accept **HRs**; prompt on other putative synonyms)

While Judge worked on his single-season home run record, this probably-42-year-old slugger reached 703 home runs for his career - passing Alex Rodriguez for 4th all time - during his farewell season with the St. Louis Cardinals.

ANSWER: Albert **Pujols** (accept José Alberto **Pujols** Alcántara)

(11) Give the following about simple computations involving the numbers three and two, for ten points each.

"Three times two" gives six, which is the smallest example of these numbers because "three times two times one" equals "three plus two plus one". The next largest example of these numbers is twenty-eight.

ANSWER: **perfect** numbers

"Three to the power of two" gives the third of these numbers. The list of these numbers begins "1, 4, 9, 16, 25...", and these are the only numbers that give an integer when they are raised to the one-half power.

ANSWER: perfect **square** numbers

"Three to the *height* of two" is repeated exponentiation, also called this operation. Because this operation comes after addition, multiplication, and exponentiation in the list of hyperoperations, mathematicians gave it a name referencing its spot in fourth place on that list.

ANSWER: **tetration** (accept word forms like **tetrade** or **tetrating**, but do not accept or prompt "tetra" alone)

(12) While speaking as a Member of Parliament, philosopher John Stuart Mill was the first to use this term in its modern understanding: the antonym of a word popularized by Sir Thomas More. For ten points each,

Give this term for literature that depicts a catastrophic fate for society, typically set in an unsettling future.

ANSWER: **dystopia** (accept word forms and additional information, such as **dystopian** literature)

In this dystopian novel by Aldous Huxley, babies are grown in laboratories and engineered into one of five castes, then conditioned with the drug *soma*.

ANSWER: **Brave New World**

"It was a bright cold day in April, and the clocks were striking thirteen." is the opening line of this dystopian novel by George Orwell, in which "Big Brother is watching you."

ANSWER: **1984**

(13) Julius Caesar's *Commentaries on the Gallic Wars* says that these religious figures burned sacrificial victims alive in wicker men, and Pliny describes a ritual in which these people would cut down mistletoe from oak trees for use as a healing elixir. For ten points each,

Name these ancient Celtic priests.

ANSWER: **druids**

Modern druidic practices grew out of a British movement that uses this landmark for rituals and ceremonies, even though we don't have archaeological evidence that ancient druids did. This circular rock formation on the Salisbury Plain was built over 4,000 years ago.

ANSWER: **Stonehenge**

Scholars debate whether Stonehenge served this chronological purpose. The Romans developed the Julian variety of this system.

ANSWER: **calendar** (prompt on "timekeeping," or similar descriptions of the action, that don't use the word "calendar")

(14) This scientist's work outside the laboratory include being a signatory on the Nuclear Non-Proliferation Treaty and serving on a national commission for science education. For ten points each,

Name this American chemist whose work inside the laboratory includes the discovery of ten transuranic elements, one of which was named for him while he was still alive.

ANSWER: Glenn T. **Seaborg**

A plaque above a water fountain in this university's chemistry building honors the location where Seaborg discovered element 97, which is now named for this school. Seaborg served as chancellor of this public university.

ANSWER: University of California, **Berkeley** (accept UC **Berkeley**; accept **berkelium**; prompt on "(University of California)" or "Cal")

Just before berkelium on the periodic table is the element named for this much earlier Polish-French chemist, who kicked off the study of radioactive elements when she discovered radium and polonium.

ANSWER: Marie **Curie** (accept **curium**)

(15) After Siegfried slays one of these creatures, tasting its blood gives him the ability to understand birdsong. For ten points each,

Name this type of mythical creature. In a series of 19th century German operas, Fafnir turned from a giant into this creature to guard a horde of gold.

ANSWER: dragon

Siegfried kills the dragon Fafnir in the third of the four operas in this cycle by Richard Wagner [ree-kart VAHG-ner], which begins with *Das Rheingold*.

ANSWER: Ring Cycle (accept Ring of the Nibelung cycle)

This final opera in the *Ring* cycle typically takes five or more hours to perform, and ends with Valhalla itself burning to the ground.

ANSWER: Gotterdamerung (accept Twilight of the Gods)

(16) Many authors create a powerful feeling of a setting by setting otherwise unrelated works in a single fictional location based on real life. For ten points each,

This Nobel laureate from the American South set *Absalom, Absalom!*, *The Sound and the Fury*, and nearly every other one of his works in the fictional Yoknapatawpha [yawk-na-pa-TAW-fa] County in Mississippi.

ANSWER: William Faulkner (accept William Cuthbert Faulkner)

This English author's setting of Wessex shares its name with a real medieval English kingdom, but is otherwise fictional. In one book, Jude Fawley moves to Christminster, this author's version of Oxford.

ANSWER: Thomas Hardy (Jude is the protagonist of Hardy's *Jude the Obscure*.)

New England was heavily fictionalized by H.P. Lovecraft for his "Mythos" of this eldritch horror, who "waits dreaming" according to a cultist chant in one story.

ANSWER: Cthulhu ([k'THOO-loo], but be incredibly lenient; accept The Call of Cthulhu)

(17) One of these astronomical objects named for Swift and Tuttle would have an impact more than 20 times more devastating than the impact that killed the dinosaurs. For ten points each,

Name these "dirty iceballs" that grow a tail when they pass by the Sun.

ANSWER: comets

As the comet approaches the Sun, dust and ice sublimating into gases, creating this fuzzy envelope surrounding the comet. The tail is then formed by solar pressure pushing small particles out of this region.

ANSWER: coma

These celestial events occur when the Earth passes through the debris trail left behind by a comet. The Swift-Tuttle comet generates one of these events that appears to originate from Perseus.

ANSWER: meteor shower (accept Perseids)

(18) Woodrow Wilson made this film the first movie to be shown inside the White House, and a white supremacist quote from Wilson appears on title cards during it. For ten points each,

Name this 1915 silent film by D.W. Griffith, often considered the most racist film of all time.

ANSWER: The Birth of a Nation

The Birth of a Nation spurred a revival of this white hood-wearing hate group.

ANSWER: Ku Klux Klan (accept KKK)

In the KKK's original incarnation, this Confederate general was the group's first Grand Wizard. The massacre of hundreds of surrendering Union soldiers by this man's troops at Fort Pillow is often cited as the darkest day of the Civil War.

ANSWER: Nathan Bedford Forrest

(19) This religion's adherents follow an ital ["eye"-tahl] diet and believe that western society, or "Babylon," is harmful to people from Africa, or "Zion." For ten points each,

Name this religion founded in Ethiopia, in which wearing dreadlocks honors the Lion of Judah

ANSWER: Rasta (accept Rastafari; accept word forms like Rastafarianism)

In Rastafari, the Lion of Judah is a symbol of this emperor of Ethiopia, who is sometimes considered the second coming of Jesus.

ANSWER: Haile Selassie I [first] (accept Tafari Makonnen)

In Rastafari, grounding ceremonies often incorporate the smoking of this substance, which is valued for its

ANSWER: marijuana (accept ganja; accept synonyms like cannabis; accept slang like pot)

(20) The main, "Greater" band of this mountain range runs west to east across Georgia and Azerbaijan, north of the Armenian Plateau. For ten points each,

Name this mountain range on the boundary of Asia and Europe, considerably southwest of the Ural Mountains. Mount Elbrus, the highest peak in Europe, is in this range.

ANSWER: Caucasus Mountains

The Caucasus Mountains span from the Black Sea in the west to this sea in the East. The capital of Azerbaijan, Baku, lies on the shores of this sea, the world's largest totally-inland body of water.

ANSWER: Caspian Sea

Dagestan and Chechnya, in the northern foothills of the Caucasus Mountains, are republics of this largest country by land area in the world.

ANSWER: Russia (accept Russian Federation; do not accept or prompt on the Soviet Union, etc.)