

Round 8

Lilly Chavez • Brad Fischer • James Fischer • Mike Laudermith • Jessica Markley
Sophie Netzel • Cooper Roh • Kristin Strey • Ethan Strombeck • Lana Kay Tutterow
Tyler Vaughan • Justin Zhang

Tossups

(1) **Settlers in this state were led by William B. Ide during a revolt commemorated by its state flag, which features a grizzly bear. In the 1840s, John (*) Fremont** explored much of this state, including the San Joaquin [wah-keen] Valley. For ten points, name this western US state whose population boomed from “Forty-Niners” seeking gold near Sacramento.

ANSWER: California

(2) **In 1846, this country’s city of Angostura changed its name to Ciudad Bolivar. The ABC islands of Aruba, Bonaire, and Curaçao [koo-rah-sah-oh] are just north of this mainland country, a little east of the opening to Lake Maracaibo. The (*) Orinoco River** flows through this country into the Atlantic Ocean just northwest of Guyana. For ten points, name this South American country, found east of Colombia, whose capital city is Caracas.

ANSWER: Bolivarian Republic of Venezuela

(3) **In a novel titled for this medical condition, the doctor’s wife is the only character not affected by this condition, which is compared to “falling into a milky sea.” The sonnet “When I Consider How My (*) Light is Spent”** describes a poet with this medical condition, which may have been caused by a detached retina. For ten points, John Milton was affected by what condition that titles a José Saramago novel about people losing their eyesight?

ANSWER: blindness (accept descriptions like being blind or being unable to see; accept unexplained or mysterious blindness; anti-prompt on “detached retina” before it is read by asking the player to be less specific; anti-prompt on “glaucoma”)

(4) **Litharge, an oxide of this element, is a component of fine crystal. This final element in the uranium decay chain was once used as an antiknock agent added to (*) gasoline.** Patients undergoing an x-ray wear an apron with this element as shielding. This element’s high toxicity prevents its modern use in paint and water pipes. For ten points, name this metallic element used in bullets, but not pencils, whose symbol is Pb [spell it].

ANSWER: lead (accept Pb before it is read)

(5) **This artist created a *Lobster Telephone* and painted a *Disintegration* of one of his paintings, in which a bare tree trunk separates into segments. (*)** Ants crawl on the surface of a red object in a painting by this artist set on a Catalonian beach, in which a distorted face with long eyelashes is draped with a soft-textured clock. For ten points, name this Spanish Surrealist artist of *The Persistence of Memory*.

ANSWER: Salvador Dalí (accept Salvador Domingo Felipe Jacinto Dalí i Domènech, Marquis de Púbol)

(6) **This ruler legendarily dissolved the world’s largest pearl in vinegar, then drank it to win a bet. A carpet was used to sneak this ruler into the headquarters of Julius Caesar. After losing the Battle of Actium, this ruler supposedly asked for and received a (*) basket of figs, which hid an asp that she then used to commit suicide. For ten points, name this Egyptian pharaoh, the lover of Julius Caesar and Marc Antony.**

ANSWER: Cleopatra VII Philopator

(7) **In a song by this band, Halsey sings “I want something stronger / Than a moment, than a moment, luv” and repeats the phrase “oh, my, my, my.” The albums *Wings* and *2 Cool 4 Skool* are by this group, which became the first (*) K-Pop group to win a Billboard Music Award. “Blood, Sweat, and Tears” and “Boy With Luv” are by, for ten points, what seven-member Korean boy band?**

ANSWER: BTS (accept Bangtan Sonyeondan; accept Bangtan Boys; accept Beyond the Scene; accept Bulletproof Boy Scouts; accept Bodan Shonendan)

(8) **The protagonist of this novel follows a “tattered man” and a “tall soldier” away from a column of wounded men. After (*) Jim Conklin’s death in this novel, the protagonist is hit in the head with a rifle butt and becomes a flag-bearer in the Union army. For ten points, name this novel by Stephen Crane about Civil War soldier Henry Fleming.**

ANSWER: The Red Badge of Courage

(9) **This quantity can be defined as momentum squared divided by two times the mass. This quantity is conserved during elastic collisions but not inelastic collisions, and it is calculated by the formula one-half times mass times velocity squared. A roller coaster maximizes this (*) energy at the bottom of a hill. For ten points, name this type of energy that is possessed by all moving objects, often contrasted with potential energy.**

ANSWER: kinetic energy (accept KE; accept kinetic alone after “energy” is read; prompt on “energy”)

(10) **This goddess’s tears turn into red gold when she misses her husband Odr. Half of those killed in battle go to this goddess’s hall, Folkvangr. Loki turned into a fly in an attempt to steal (*) Brisingamen, this goddess’s necklace, and she rides a chariot pulled by cats. Thor dressed like this goddess in order to retrieve his stolen hammer. For ten points, name this Norse goddess of love and beauty.**

ANSWER: Freyja (do not accept or prompt on “Frey” or “Frigg”)

(11) **A poem by this writer promises “I will come again, my love / though ‘twere ten thousand mile” and compares love to a “red, red rose.” This poet says “we’ll tak’ a cup o’ kindness yet” and asks “should (*) auld acquaintance be forgot” in his local dialect, which he also used for a poem in which “the best laid schemes o’ Mice an’ Men / gang aft agley.” For ten points, name this Scottish poet of “Auld Lang Syne” and “To a Mouse.”**

ANSWER: Robert Burns (accept Rabbie Burns)

(12) **In exponential growth, the time it takes to accomplish this process is found by dividing the natural log of two by the growth rate. Doing this to the side lengths of a square will cause the area to (*) quadruple.** For ten points, name this process which is done to find new terms in the sequence one, two, four, eight, sixteen, and so on.

ANSWER: **double** (accept word forms like **doubling**; accept equivalents like “**multiply by two**” or “now there are **twice** as many balls;” prompt on partial answers like “multiply”)

(13) **A commercial for a documentary about this politician was the subject of the 2010 *Citizens United* case, which reformed campaign finance law. John Podesta chaired this politician’s most recent campaign, which included Tim (*) Kaine as running mate. This politician wrote the book *What Happened* about her campaign for President in 2016.** For ten points, name this former First Lady who ran for President against Donald Trump.

ANSWER: Hillary **Rodham Clinton** (accept either or both last names)

(14) **This man wrote the hymn “A Mighty Fortress is Our God.” This man was the subject of the *Exsurge Domine* bull when his refusal to recant at the Diet of (*) Worms led to his excommunication from the Catholic church. Criticisms of the sale of indulgences in the *Ninety-Five Theses* were written by, for ten points, what German monk-turned-reformer who started the Protestant Reformation?**

ANSWER: Martin **Luther**

(15) **One of these events, KSN 2011b, was observed giving off a flash of ultraviolet radiation in what is believed to have been caused by the collision of two (*) white dwarves.** These events may leave behind a neutron star and create a massive shockwave. Our sun is not large enough to undergo, for ten points, what type of incredibly bright and powerful stellar explosion?

ANSWER: Type 1a **supernova** (do not accept or prompt on “nova”)

(16) **In 1968, this country seized the American research ship *Pueblo*. This country advocates a state policy of self-reliance called *Juche* and has clashed with its neighbor in a (*) buffer zone running along the thirty-eighth parallel called the DMZ.** For ten points, name this Asian country that has been ruled under dictators from the Kim family from its capital of Pyongyang.

ANSWER: **North Korea** (accept **Democratic People’s Republic of Korea**; prompt on “Korea”; do not accept or prompt on “South Korea” or “Republic of Korea”)

(17) **Nearly sixty people were killed in this country’s city of Kerman in a stampede during a January 2020 funeral procession. Canada claimed that this country’s military shot down Ukraine International Flight 752. This country’s Quds Force was led by (*) Qasem Soleimani until he was killed in a drone strike in January 2020.** President Trump has threatened war with, For ten points, what country whose capital is Tehran?

ANSWER: Islamic Republic of **Iran** (accept **Persia**)

(18) **In a tone poem by Modest Mussorgsky, evil spirits celebrate during one of these periods of time on Bald Mountain. This time period appears in the English title of Mozart’s *Serenade Number Thirteen* that is called a (*) “little” piece of music for this time period. In Saint-Saens’ *Danse macabre*, a rooster crow representing sunrise ends, for ten points, what time period that is depicted in a nocturne?**

ANSWER: night (accept equivalents; accept Night on Bald Mountain; accept Noch ny lysoy gore; accept A Little Night Music; accept Eine Kleine Nachtmusik)

(19) **The sarcoplasmic reticulum stores ions of this mineral, which is needed for muscle contraction. Vitamin D assists the absorption of both phosphate and this element in the gut. (*) Seniors may take a supplement of this element to prevent osteoporosis, and children often get their intake by drinking milk. For ten points, name this element needed to build strong bones and teeth.**

ANSWER: calcium (accept Ca)

(20) **This novel satirizes minor religious arguments with Big- and Little-Endians, who disagree over how to break a boiled egg. This novel’s protagonist visits Laputa, Luggnag, and Japan, and meets (*) six-inch-tall humans who inhabit Liliput. The title doctor is sold to the giant queen of Brobdingnag [BROB-ding-nag] in, for ten points, what satirical novel by Jonathan Swift?**

ANSWER: Gulliver’s Travels

Bonuses

(1) When asked how his iconic silkscreens were made, this artist legendarily responded, “I don’t know; ask Elaine,” in reference to the American artist Sturtevant. For ten points each,

Name this American Pop artist. Sturtevant borrowed silkscreen materials from this artist to replicate his *Marilyn Diptych*.

ANSWER: Andy **Warhol** (accept Andrew **Warhola**)

Sturtevant also borrowed Ben-Day dot stencils from another Pop artist, Roy Lichtenstein, to create works like *Lichtenstein, Frighten Girl*, which imitates the art style of these everyday art forms. Lichtenstein’s works often incorporate written sound effects and speech bubbles to imitate this style of art.

ANSWER: **comics** (accept **comic books** or **comic strips**)

Yet another Pop artist, Jasper Johns, appreciated Sturtevant’s copies enough to commission her to replace a stolen painting of one of these objects. In another painting, Johns used white paint to cover the stars and stripes of one of these objects.

ANSWER: American **flag**

(2) This author told his last wife that one of his characters, Curley’s wife, doesn’t have a name because “she’s not a person, she’s a symbol. She has no function, except to be a foil - and a danger to Lennie.” For ten points each,

Name this author, who wrote about Lennie accidentally killing Curley’s wife in the appropriately-named novel *Of Mice and Men*.

ANSWER: John **Steinbeck** (accept John Ernst **Steinbeck, Jr**)

Female characters who do get names in Steinbeck’s work include Rose of Sharon and Ma Joad, characters in this Steinbeck novel. In this novel, three generations of the Joad family try to drive to California during the Dust Bowl.

ANSWER: The **Grapes of Wrath**

Most women in Steinbeck’s novels are either stay-at-home wives and mothers or have this profession. In *East of Eden*, Cathy Ames leaves her husband and sons to get this job. She eventually manages to kill her boss and takes over as the Madame of the brothel where she works.

ANSWER: **prostitute** (accept **whore**; accept common equivalents)

(3) If the input value of this operation is increased by five, the output value will become much larger and have one extra zero at the end. For ten points each,

Name this operation whose input must be an integer and which is denoted with an exclamation point. When applied to four, it gives twenty-four; when applied to five, it gives one hundred twenty.

ANSWER: **factorial**

Factorials are found by using this operation on the input number and every positive integer less than it.

ANSWER: **multiplication** (accept word forms; accept equivalents, such as **times**)

Factorials are used to calculate the number of these arrangements, which are often contrasted with combinations. If you have n different opponents in a round robin tournament, n factorial will calculate the number of different possible ordered schedules for you to play them all.

ANSWER: **permutations**

(4) This agreement resolved the Mesilla Valley dispute and cost ten million dollars, but its namesake negotiator was given approval to spend up to fifty million if Santa Anna was willing to sell more. For ten points each,

Name this 1854 purchase of land from Mexico in which the US gained what is now southern Arizona and southwest New Mexico.

ANSWER: **Gadsden** Purchase

The US was particularly interested in the land acquired in the Gadsden Purchase because it provided an opportunity for a southern one of these projects. The first of these projects connected Iowa and California and was finished at Promontory Point, Utah in 1869.

ANSWER: transcontinental **railroad** (accept anything related to **train** networks)

James Gadsden wanted to purchase more land, especially this peninsular region of western Mexico, but Santa Anna wouldn't sell. This strip of land separates the Gulf of California from the Pacific Ocean.

ANSWER: **Baja** [**bah-hah**] California

(5) This author created Emily Starr, a violet-eyed orphan girl who lives on New Moon Farm with her aunts and cousin. For ten points each,

Name this Canadian author whose novels *Rilla of Ingleside* and *Rainbow Valley* follow the continuing adventures of her most famous character.

ANSWER: L.M. **Montgomery** (accept Lucy Maude **Montgomery**)

L.M. Montgomery created this classic children's character, an orphan girl who lives in *Windy Poplars* and the *House of Dreams* after leaving her adoptive home of *Green Gables*.

ANSWER: **Anne** Shirley (accept **Anne** Blythe)

In *Anne of Green Gables*, Anne Shirley is adopted by these two people, a brother and sister who thought they were adopting a young boy.

ANSWER: **Matthew** and **Marilla** Cuthbert (prompt on "Cuthbert")

(6) The tongue-twister “she sells seashells on the seashore” may have been inspired by Mary Anning, an English collector of these artifacts. For ten points each,

Shells, bones, and footprints are among the many types of these objects, which are preserved remains commonly left by extinct creatures such as dinosaurs.

ANSWER: fossils

Mary Anning hunted fossils in England’s Blue Lias cliffs, which are made of mudstone and this sedimentary rock formed from the calcite skeletons of marine animals.

ANSWER: limestone (prompt on “calcium carbonate” or “CaCO₃”)

Anning’s first major find was a Jurassic period skeleton of this marine reptile with a long, pointed mouth and a body shaped like a dolphin.

ANSWER: ichthyosaurus [ik-thee-oh-saurus]

(7) Seven boys and seven girls were regularly sent to be used as sacrifices to this creature. For ten points each,

Name this animal-human hybrid from Greek mythology, for which Daedalus [DED-ah-lus] built a maze-like labyrinth.

ANSWER: Minotaur

This Athenian hero ventured into the Labyrinth to slay the Minotaur. This hero’s father committed suicide when this hero forgot to switch his sails from black to white upon returning to Athens.

ANSWER: Theseus

This princess gave Theseus a ball of string to keep him from getting lost in the Labyrinth. According to some sources, she became the consort of Dionysus after being abandoned by Theseus.

ANSWER: Ariadne

(8) This country became the first Muslim-majority democracy to be led by a woman when Benazir Bhutto led the PPP to victory in 1988 elections. For ten points each,

Name this country where Bhutto was assassinated in 2007 at a campaign rally in Rawalpindi.

ANSWER: Islamic Republic of Pakistan

This terrorist group claimed responsibility for Benazir Bhutto’s 2007 assassination. Ayman al-Zawahiri currently leads this group, which carried out a series of bombings on US embassies in 1998, as well as the 9/11 attacks.

ANSWER: al-Qaeda

This leader and co-founder of al-Qaeda was killed in a Navy SEAL raid in Pakistan in May 2011.

ANSWER: Osama bin Laden

(9) This operatic character defeats the dragon Fafner, and the warrior Brünnhilde rides a horse into his funeral pyre after his death. For ten points each,

Name this Germanic hero who titles the third opera in Richard Wagner's [REE-kard VAHG-ner's] *Ring Cycle*. This character is represented by the leitmotif [lyte-moh-teef] of a horn call.

ANSWER: Siegfried

The role of Siegfried is written for this male vocal range, which is higher than bass in the traditional SATB [spell it] vocal assignment.

ANSWER: tenor

To get a specific low sound for the *Ring Cycle*, Wagner invented a namesake version of this largest and lowest brass instrument. The sousaphone is a round variety of this instrument used for marching.

ANSWER: (Wagner) tuba

(10) Hercules the liger, current record holder for world's largest cat, will never have offspring because ligers are this type of usually-infertile organism. For ten points each,

Ligers, mules, and beefalo are described by this term, meaning they are the offspring of parents from two different species.

ANSWER: hybrids

In 2019, DNA analysis confirmed the existence of a hybrid between a beluga whale and this whale species with a long, unicorn-like tusk protruding from its head.

ANSWER: narwhal

The large size of ligers and the great stamina of mules are examples of hybrid vigor, a general enhancement of hybrid traits over parent traits that is also known as this type of advantage. This term describes genotypes with two different alleles [uh-LEELS] for a genetic trait.

ANSWER: heterozygous (accept word forms, like heterozygote (advantage))

(11) This event was manufactured as a publicity stunt for a religious debate, and it attracted Clarence Darrow and William Jennings Bryan as participants. For ten points each,

Name this 1925 trial in Tennessee regarding a high school teacher's violation of the Butler Act.

ANSWER: Scopes monkey trial (accept Tennessee v. John Scopes; prompt on "monkey trial"; prompt on, but do not otherwise reveal, answers that mention "evolution" without also mentioning Scopes)

The Scopes "monkey" trial was a debate over the teaching of this scientific concept in public schools, which the Butler Act restricted. "Intelligent design" was promoted as an alternative to this concept until a 2005 court case.

ANSWER: evolution of humans (accept Darwinian evolution; accept evolution by natural selection; accept natural selection; prompt on "biology")

On the seventh day of the Scopes trial, Darrow called Bryan to the stand as an expert witness for the historical nature of this book. All of the ensuing testimony was stricken from the record as unrelated to the case.

ANSWER: Christian Bible

(12) Answer the following about the newest season of *Stranger Things*, for ten points each.

This fifteen-year-old actress, who also played Madison Russell in *Godzilla: King of the Monsters*, returns to portray the telekinetic girl Eleven on the show.

ANSWER: Millie Bobby **Brown**

This character, Steve Harrington's co-worker at Scoops Ahoy!, was introduced in the third season. She is the first LGBTQ character in the series.

ANSWER: **Robin Buckley** (accept either or both names)

As is standard with releases on this website, the new season of *Stranger Things* was released all at once to encourage binge watching. Other originals on this streaming service include *Daredevil* and *Greenhouse Academy*.

ANSWER: **Netflix**

(13) In this novel, the ruling party of Oceania promotes the tenets that "War is Peace," "Ignorance is Strength," and "Freedom is Slavery." For ten points each,

Winston Smith and Julia are arrested by the Thought Police in what dystopian novel written by George Orwell?

ANSWER: **1984**

After his arrest, Winston is tortured with rats until he says he loves this omnipresent dictator of Oceania, who is "always watching."

ANSWER: **Big Brother**

Big Brother is opposed by this supposed leader of the Brotherhood, who is denounced as an enemy of the Ingsoc party during the Two Minutes' Hate.

ANSWER: **Emmanuel Goldstein** (accept either underlined name)

(14) A material's capacity for this quantity is the ratio of this quantity applied to the object and the object's ensuing change in temperature. For ten points each,

Name this form of thermal energy, which can be transferred by radiation, convection, and conduction.

ANSWER: **heat** (accept **heat** capacity)

Heat is measured in this SI unit, the standard unit used to measure energy. This unit is equal to a force of one Newton applied over a distance of one meter.

ANSWER: **joules** (accept **J**; do not accept additional information, like "kilojoule")

This thermodynamic quantity is equivalent to the total heat content in a system. Hess's law can be used to find the total change in this quantity in chemical reactions.

ANSWER: **enthalpy** (accept **H**; do not accept "entropy")

(15) This treaty was outlined by Britain, France, Italy, and the United States at the Paris Peace Conference. For ten points each,

Name this 1919 treaty that punished Germany for losing World War I.

ANSWER: Treaty of Versailles [vayr-sye]

In one of the more controversial aspects of the Treaty of Versailles, Germany was forced to make these payments as compensation for damage caused during the war. Many economists believed the treaty's requirements - over one hundred thirty billion marks' worth of these penalties - was too harsh.

ANSWER: reparations (prompt on "indemnity;" do not accept or prompt on "tribute")

To pay the reparations, Germany printed lots of extra paper money, causing a "hyper" form of this economic phenomenon. As a result, simple items like loaves of bread cost hundreds of billions of marks by 1923.

ANSWER: hyperinflation

(16) The onion domes of this city's Saint Basil's Cathedral legendarily impressed Ivan the Terrible enough that he blinded the architect to prevent him from recreating its brilliance. For ten points each,

Name this Russian city where Saint Basil's Cathedral overlooks Red Square.

ANSWER: Moscow

Moscow's Red Square is home to this building, the presidential home and office. The name of this building can generally refer to any similar fortified Russian complex.

ANSWER: Kremlin

Red Square is also home to this building, which was quickly built in 1924 and replaced with a more permanent structure years later. This building is traditionally guarded by the "Number One Sentry," and there are often long waiting lines to respectfully enter this building. A description is acceptable.

ANSWER: the mausoleum of Vladimir Lenin (both parts required; accept mausoleum of Vladimir Ilyich Ulyanov, with both parts required; accept tomb in place of mausoleum; prompt on partial answers like "mausoleum" or "tomb")

(17) In this novel, Adèle Ratignolle [ra-teen-YOLL] embodies the Victorian ideal of motherhood, the "Angel in the House," which the protagonist finds impossible to emulate. For ten points each,

Name this novel in which Edna Pontellier [pon-teh-lee-AY] tries to break free of social constraints by leaving her family and pursuing a relationship with Robert Lebrun, but drowns herself at Grand Isle when she is rejected.

ANSWER: The Awakening

The Awakening is an early work in this literary genre, which focuses on the often-unseen struggles of women.

ANSWER: feminism (accept word forms like feminist literature)

The Awakening is one of the many feminist works by this American author of the short stories "Desirée's Baby" and "The Story of an Hour."

ANSWER: Kate Chopin (accept Katherine O'Flaherty Chopin)

(18) The Haber process reacts three molecules of hydrogen gas for every molecule of this gas. For ten points each, Name this gas that makes up seventy-eight percent of the Earth's atmosphere.

ANSWER: nitrogen gas (accept, but do not otherwise reveal, N_2)

The Haber process converts nitrogen and hydrogen into this chemical, which is vital for the production of fertilizer.

ANSWER: ammonia (accept NH_3 ; do not accept or prompt on "ammonium")

At standard temperature and pressure, nitrogen is one of seven elements that is stable in this form; the other six are hydrogen, oxygen, and the four lightest halogens.

ANSWER: diatomic elements (accept descriptions related to the fact that two atoms of it bond together; prompt on descriptions related to it bonding to itself)

(19) Name the following branches of Christianity that developed in America, for ten points each.

The largest denomination of this branch of Christianity originated in the American South. This denomination is named for a rite of admission into the church that believers undergo as adults by being fully immersed in water.

ANSWER: (Southern) Baptists (prompt on "baptism")

The founder of this denomination, George Fox, was said to make his followers "tremble." The Shakers broke off from this pacifist denomination, whose services often include unprogrammed worship.

ANSWER: Quakers (accept Society of Friends or Religious Society of Friends)

This branch developed in the 1830s from William Miller's prediction that the second coming of Christ would take place on October 22nd, 1844. Its primary denomination, named "Seventh-day," observes Saturday as the Sabbath.

ANSWER: Seventh-day Adventists (accept word forms like Adventism)

(20) A polysomnogram measures the body's behavior during this activity and can be used to study disorders like narcolepsy. For ten points each,

Name this phenomenon that is divided into REM and non-REM phases.

ANSWER: sleep

A relatively common sleep disorder is bruxism, the clenching or grinding of these body parts; such grinding can damage crowns, caps, and fillings.

ANSWER: teeth (do not accept or prompt on "bone")

Obesity and a small nasal airway are risk factors for this sleep disorder, in which breathing is regularly paused for several seconds or minutes. CPAP machines can help patients with this disorder.

ANSWER: sleep apnea