

Round 3

Lilly Chavez • Brad Fischer • Natalie Howell • Clare Keenan • Mike Laudermith
Sophie Netzel • Lauren Onel • Aleija Rodriguez • Zane Smalley • Kristin Strey
Ethan Strombeck • Lana Kay Tutterow • Tyler Vaughan • Trevor Vice

Tossups

(1) **This body of water is plagued with *Karenia brevis*, which caused a massive red algae bloom in August 2018. *Ixtoc I* [ish-tok “one”], an underwater rig in this body of water’s Bay of (*) Campeche, blew out in 1979. Thirty-one years later, that disaster was surpassed at this gulf’s Macondo Prospect, where the *Deepwater Horizon* rig exploded. The Yucatan Peninsula, Cuba, and Florida lie along the edge of, for ten points, what large gulf south of the United States?**

ANSWER: Gulf of Mexico (accept Mexico alone after “this gulf” is read)

(2) **This field of study’s highest honor is restricted to people under age 40 and was first given to a woman in 2014, when Maryam Mirzakhani was recognized. This subject is recognized with the (*) Fields Medal, but not by a Nobel Prize; instead, scholars of this subject have been given the Economics Nobel, as with John Nash’s work on game theory. For ten points, name this general field of study whose Abel Prize was given to Nash for his work on differential equations.**

ANSWER: mathematics

(3) **In an opera by this composer, Minnie loves Dick Johnson, who is actually the bandit Ramerrez. This composer of *Girl of the Golden West* also wrote an opera finished by Franco Alfano in which a princess executes anyone who cannot answer three riddles. Jonathan (*) Larsen adapted another opera by this composer into the musical *Rent*; that opera shows the lives of four artists in Paris’s Latin Quarter. For ten points, name this composer of *Turandot* and *La bohème*.**

ANSWER: Giacomo Puccini

(4) **A hypothetical type of this structure is the 20-mile long O’Neill cylinder, and Wernher von Braun’s design for one is based on a rotating wheel. The most recently completed one of these is China’s *Tiangong-2*. Valery Polyakov holds the endurance record for spending (*) 437 days aboard one of these called *Mir* [meer], and due to a calculation error, the American one, *Skylab*, crashed in Australia upon re-entry. For ten points, name this type of structure whose International example houses astronauts and their experiments in outer space.**

ANSWER: space stations (accept orbital stations)

(5) **This country was defended by leaders like “Good Sir” James Douglas and Andrew de Moray. In 1603, this country’s king inherited the English crown on the death of Elizabeth I, becoming James VI of this country and James I of (*)** England. This country was led in its wars of independence in the 13th and 14th centuries by William Wallace and Robert the Bruce. For ten points, name this country that, in 1707, officially united with its southern neighbor, England.

ANSWER: Scotland (do not accept England, Great Britain, the United Kingdom, etc.)

(6) **In an early version of this story, Talia names her children Sole and Luna. Charles Perrault added seven fairies to this story, and a German re-telling of this story increased the number to twelve fairies, who receive golden dishes in exchange for giving (*)** blessings to a newborn girl named Briar Rose. In this story, a prince finds a mysterious castle covered in thorns and frees a princess by kissing her. For ten points, name this fairy tale recorded by the Brothers Grimm about a princess cursed to sleep for one hundred years.

ANSWER: Sleeping Beauty (accept La Belle au bois dormant; accept Sun, Moon, and Talia or Sole, Luna, e Talia until “Luna” is read; accept Little Briar Rose or Dornröschen until “Briar Rose” is read)

(7) **Turbinate bones surround organs dedicated to this ability, which is enhanced by the Jacobson’s organ in snakes. Insects detect pheromones by this ability using their antennae, and civet oil and (*)** musk appeal to this ability in humans. This type of sensory signal is gathered in the olfactory bulb, which is well-developed in the carrion-seeking turkey vulture and the tracking bloodhound. For ten points, name this sense in which odor molecules are detected by the nose.

ANSWER: smell

(8) **This biblical figure married Michal after collecting 200 Philistine foreskins. Joab, commanded this man’s army, and helped him plan the death of Uriah the Hittite so this man could marry (*)** Bathsheba. This youngest son of Jesse was the father of Absalom, and is believed to have authored the Psalms. For ten points, name this King of Israel who was the successor to Saul and father of Solomon.

ANSWER: David (accept Dawud)

(9) **This novel’s protagonist enrolls in night classes at the Ilium School of Optometry after returning from World War II. Under the influence of hand-shaped Tralfamadorian aliens, this novel’s protagonist has a child with Montana Wildhack, adopts the philosophy “so it goes,” and becomes (*)** “unstuck in time.” For ten points, name this novel in which Billy Pilgrim relives the firebombing of Dresden, written by Kurt Vonnegut.

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

(10) **Three days before this battle began, Joseph Hooker was relieved and replaced by George Meade. This battle, which included fighting at the Peach Orchard and Little (*)** Round Top, involved three days of fighting that ended with Pickett’s Charge. Months after this battle, President Lincoln dedicated a national cemetery on its grounds. For ten points, name this Civil War battle that was commemorated with an address that begins “Four score and seven years ago.”

ANSWER: Battle of Gettysburg

(11) **A baseball game in this city was forfeited when “Disco Demolition Night” went horribly wrong. Babe Ruth’s called shot took place in this city during a road game for the New York Yankees. This city hosted World Series games in 1959 at Comiskey Park and (*) 2005 at US Cellular Field, but not in any of the years in between. For ten points, name this city that held parades in 2005 and 2016 to celebrate, respectively, the White Sox and the Cubs.**

ANSWER: Chicago

(12) **Determining Earth’s density from fluctuations in its gravity field is known as this type of problem. Distance squared has this relationship to (*) sound intensity for a listener, and the separation of point charges also has this kind of effect on attraction by Coulomb’s law. Newton’s second law makes acceleration proportional in this way to mass. For ten points, name this relationship, expressed as $Y = \frac{K}{X}$, in which one variable decreases while another increases.**

ANSWER: inverse

(13) **In this play, a speech that remembers “on the Lupercal,” the speaker “thrice presented” this play’s title man “a kingly crown” turns a group of citizens against Cinna the poet. A ghost in this play warns one of his killers that he will be defeated at (*) Philippi, and is defended by Mark Antony. The title character of this play says “et tu, Brute?” while being stabbed by his friend Brutus and other senators. For ten points, name this Shakespeare play about the murder of a Roman general.**

ANSWER: The Tragedy of Julius Caesar

(14) **Two hundred people were killed in this country in a bombing on the Sari Club and Paddy’s Pub. In September 2018, hundreds of people were killed in Palu on this country’s island of Sulawesi by a tsunami. The December 2004 tsunami that killed over (*) 200,000 people was caused by an earthquake off the coast of this country’s island of Sumatra. The 2002 Bali nightclub bombings took place in, for ten points, what Asian country made up of thousands of islands, including Java?**

ANSWER: Indonesia

(15) **This artist created the print *Fiesta Pig* and organized the *Exploding Plastic Inevitable* events for creators who worked with this man in his studio, “The (*) Factory.” This artist created a *Diptych* of Marilyn Monroe using silkscreens, and created a series of paintings showing mass-produced items in “Pepper Pot” and “Beef Noodle” flavors. For ten points, name this artist who painted a series of *Campbell’s Soup Cans*.**

ANSWER: Andy Warhol (accept Andrew Warhola)

(16) **As governor, this politician was the first to sign a no-fault divorce law in the US. This man, who fired thousands of striking air traffic controllers, gave a speech in which he praised a group who had “slipped the (*) surly bonds of Earth [and] touched the face of God.” The *Challenger* disaster took place during the term of, for ten points, what Governor of California and US President who told Mikhail Gorbachev to “tear down this wall” in 1987?**

ANSWER: Ronald Reagan

(17) **With the help of his brothers Vili and Ve, this god killed Ymir [EE-meer], and he also disguised himself as Bolverk in order to steal the Mead of Poetry. This god, who owned the ring Draupnir [Drowp-neer], gave up his (*) eye to drink from the well of Mimir and obtained the wisdom of the runes after hanging himself from Yggdrasil [IGG-drah-zill] for nine days. The ravens Hugin [HOO-ghin] and Munin [MOO-nin] belonged to, for ten points, what chief god in Norse mythology?**

ANSWER: Odin (accept Wotan)

(18) **An organic group and an element from this family bond to magnesium in a Grignard reagent. The two elements in Teflon are carbon and one from this family, also the most electronegative. One member of this family turns dark blue to indicate starch. Its elements form anions with (*) minus one charge, and it is the only group on the periodic table with elements in all three states at room temperature. For ten points, name this group of elements that includes bromine, chlorine, and fluorine.**

ANSWER: halogens (accept group 17; accept group VII A; accept halides)

(19) **In a poem about this character, he travels along the Mystic River after “silently [rowing] to the Charlestown shore” past the HMS *Somerset*. This man issues a “cry of defiance, and not of fear” after impatiently watching the belfry of the old North Church to see (*) lanterns signalling an invasion with the code “one if by land and two if by sea.” For ten points, name this literary and historical figure who, in a poem by Longfellow, visits Lexington and Concord to warn of approaching British redcoats during his “midnight ride.”**

ANSWER: Paul Revere (accept Paul Revere’s Ride; accept the (midnight) ride of Paul Revere)

(20) **Giuseppe Ferlini blew up dozens of these structures that had been built by the Kushites in Nubia. El Castillo is a Mexican example of these structures that served as a temple to Kukulcan in the Mayan civilization. An ancient (*) Mesopotamian precursor to these structures, the ziggurat, had steps that were smoothed out when designed by architects like Imhotep. For ten points, name this type of triangular structure built as a tomb for Egyptian pharaohs.**

ANSWER: pyramids (accept step-pyramids)

Bonuses

(1) This character takes the fall after Daisy Buchanan runs a woman over with this man's car. For ten points each, Name this F. Scott Fitzgerald title character, who is killed in his pool by George Wilson, a car mechanic out for revenge for the death of his wife.

ANSWER: Jay Gatsby (accept James Gatz; accept The Great Gatsby)

This woman, George Wilson's wife, has an affair with Tom Buchanan that ends shortly before Daisy kills her with Gatsby's car.

ANSWER: Myrtle Wilson

This friend of Daisy's, an avid sportswoman, has a brief relationship with Daisy's cousin, Nick Carraway.

ANSWER: Jordan Baker (accept either underlined name)

(2) In September 2018, the co-founders of this service, Kevin Systrom and Mike Krieger, announced their resignations from Facebook, which bought this service in 2012.

Name this social media platform, which lets users apply filters to photos and make "Stories" to pretend that they're using Snapchat instead.

ANSWER: Instagram

Tom Brady's 4 million Instagram followers are good for the second most among NFL players; this former LSU wide receiver has more than 11 million followers, most of whom were presumably amazed by his incredible three-finger catch in 2014 against the Cowboys.

ANSWER: Odell Beckham, Jr.

A viral 2018 short story argues that this actor and former WWE wrestler should leverage his Instagram following - over 110 million people - into a Presidential run.

ANSWER: Dwayne Johnson (accept The Rock)

(3) The American evacuation from this country was signaled by the playing of Irving Berlin's "White Christmas" on the radio in April. For ten points each,

Name this country where helicopters extracted over 2,000 people in Operation Frequent Wind in 1975, marking the end of American involvement in a Southeast Asian war.

ANSWER: Vietnam

This capital city of South Vietnam fell on April 30, 1975. It has since been renamed; please give its name prior to its capture by the North Vietnamese.

ANSWER: Saigon

Saigon was renamed for this Communist leader who died in 1969 during the war. As a student in France in 1919, this man tried to speak with Allied leaders to take part in the Versailles negotiations, but was ignored.

ANSWER: Ho Chi Minh (accept Nguyen Sinh Quoc; accept Ho Chi Minh City)

(4) Peter Minuit purchased this landmass from a group of Lenape Native Americans for \$24 worth of goods, despite the fact that the land was controlled by other people. For ten points each,

Name this island that became part of New Amsterdam.

ANSWER: Manhattan Island

Manhattan is an island surrounded by three rivers: the Hudson on the west, the East on the east, and this narrow strait separating Manhattan from the Bronx.

ANSWER: Harlem River

In the 1850s, New York City developed this green space on Manhattan Island. Frederick Law Olmstead and Calvert Vaux designed this urban park, the largest on Manhattan Island.

ANSWER: Central Park

(5) This author's novellas include one in which Pozdnyshv [POSD-nih-shev] murders his wife over her affair with a violinist and one in which a government official is injured while hanging curtains and slowly dies while contemplating his mortality. For ten points each,

Name this Russian author of *The Kreutzer Sonata* [KROYT-zurr Sonata] and *The Death of Ivan Ilyich*, who also wrote an extremely long novel that follows the lives of several families during a nineteenth-century invasion of Russia.

ANSWER: Leo Tolstoy (accept Lev Tolstoi; accept Lyov Nikoleyavich Tolstoi)

This long novel by Tolstoy follows the lives of the Bezukhov, Bolkonsky, and Rostov families in the early 1800s, as a French emperor attempts to invade Russia.

ANSWER: War and Peace (accept Voyná i mir)

War and Peace centers on the invasion of this French emperor, who tried to conquer Russia in 1812.

ANSWER: Napoleon Bonaparte (accept either underlined name; accept Napoleon I)

(6) John Dalton discovered this law when he realized nitrogen and oxygen gases could be combined to form both NO₂ [N-O-two] and N₂O₃ [N-two-O-three]. For ten points each,

Identify this law of chemistry that states that when two elements form more than one compound, the elements must combine in whole number ratios.

ANSWER: law of multiple proportions

Dalton used his law in an attempt to prove that ethylene contains twice as many hydrogens as this simplest hydrocarbon molecule with formula CH₄ [C-H-four].

ANSWER: methane

The law of multiple proportions depends on Dalton's theory of these objects being unique for each element. Dalton considered these to be tiny, indivisible billiard balls, but in modern theory they contain smaller particles like protons and electrons.

ANSWER: atoms

(7) This beast resided in Lake Lerna. For ten points each,

Name this creature from Greek mythology. When one of its heads was cut off, two more grew back in its place until Iolaus [eye-oh-lah-wuss] thought of cauterizing the stumps.

ANSWER: Lernaean **Hydra**

The Hydra was the second of twelve labors undertaken as penance by this Greek hero for killing his first wife, Megara, and his children.

ANSWER: **Heracles** (accept **Hercules**)

The first of the twelve labors was to slay this creature. Upon attempting to do so, Hercules found that its fur was impenetrable, so he strangled this creature instead.

ANSWER: **Nemean lion** (prompt on “lion”)

(8) Frederick Muhlenberg held this position in the first Congress, and its holder from 2015 to 2018 announced his retirement from the House after his term. For ten points each,

Name this Congressional leadership position that has been recently held by Nancy Pelosi and John Boehner [bay-ner].

ANSWER: **Speaker of the House** of Representatives (prompt on “Speaker”)

This man served three non-consecutive terms as Speaker of the House and took part in the “Corrupt Bargain” of 1824 that made him Secretary of State.

ANSWER: Henry **Clay**

Henry Clay’s “corrupt bargain” helped this man become the sixth US President. As Secretary of State under James Monroe, this man signed a treaty with Spain that helped annex Florida.

ANSWER: **John Quincy Adams** (prompt on “Adams”; do not prompt on John Adams)

(9) A triangularly-arranged group of men wearing black cloaks and ruffled collars in the background of this painting likely paid a commission to appear in this painting. For ten points each,

Name this painting, in which the title doctor demonstrates the musculature in the arm of a corpse to members of the Amsterdam Surgeons’ Guild.

ANSWER: The **Anatomy Lesson** of Doctor Nicolaes Tulp (accept The **Anatomy Lesson** of Doctor Tulp)

The Anatomy Lesson of Doctor Nicolaes Tulp was created by this seventeenth-century painter, who used a dark varnish in a painting of *The Night Watch*.

ANSWER: **Rembrandt** Harmenszoon van Rijn

Like Frans Hals and Johannes Vermeer, Rembrandt was a prominent painter of this European nationality’s “Golden Age.”

ANSWER: **Dutch** (accept **Nederland** or **Netherlandish**; accept **Dutch** Republic; accept the **Netherlands**)

(10) Joseph Priestley's 1767 book *The History and Present State of Electricity* spends most of a chapter discussing this American's experiment with lightning and a kite. For ten points each,

Name this scientist who first labeled different electrical charges as positive and negative. He also invented the lightning rod, bifocal glasses, and a namesake stove.

ANSWER: Benjamin Franklin

Franklin's kite experiment helped establish that lightning is an example of this type of electricity caused by one object gaining a greater negative charge compared to another.

ANSWER: static electricity

As electric charge built up in the key at the end of his kite string, Franklin stored it using one of these devices named for a Dutch city. This device consists of a glass cup that is both lined and wrapped with metal foil.

ANSWER: Leyden jar

(11) For ten points each, give the following about the Crusades.

This crusade was called in 1095 by Pope Urban II, who declared "Deus vult," or "God wills it," in response to a plea for help from Alexios Komnenos.

ANSWER: First Crusade

The Fourth Crusade, in the early 1200s, ended with the crusaders deciding to sack this Christian city, the capital of the Byzantine Empire, because they had lost their original source of funding.

ANSWER: Constantinople

According to legend, a few years after the Fourth Crusade, a group of these people in France were led by Stephen of Cloyes in a journey to the Mediterranean Sea, which would part so they could walk to Jerusalem to convert Muslims; when that didn't happen, these people were sold into slavery in Africa.

ANSWER: children (accept equivalent answers; accept the Children's Crusade)

(12) During this holiday, participants cast food into a body of flowing water to cast off their sins. For ten points each,

Name this holiday that occurs on the first of Tishrei, ten days before Yom Kippur. This first of the High Holy Days commemorates the Jewish New Year.

ANSWER: Rosh Hashanah (accept Yom Teruah)

During Rosh Hashanah, participants eat apples dipped in this substance. In Exodus, God tells the Israelites that the promised land is flowing with milk and this other substance.

ANSWER: honey

If Rosh Hashanah falls on this day, the shofar, a trumpet made out of a ram's horn, is not blown. On this day, wine is blessed with the kiddush before an evening ceremony that ushers in the new week.

ANSWER: Shabbat (accept Shabbos; accept Sabbath; prompt on "Friday" or "Saturday")

(13) Give the following about mathematics in three dimensions, for ten points each.

In the classic rectangular, three-dimensional grid, height is represented by adding this axis to the x and y axes.

ANSWER: **z** axis

In the x , y , z coordinate system, equations like “ x plus y plus z equals 3” generate this type of geometric object, an infinite two-dimensional surface.

ANSWER: **plane**

Another three-dimensional system, cylindrical coordinates, is created by adding the z coordinate to this two-dimensional system. In this system, one variable represents distance from the origin, and the other variable represents an angle of rotation from a reference axis.

ANSWER: **polar** coordinate system

(14) At the start of this work, the protagonist tries to climb up a small mountain, but he is blocked by a leopard, a lion, and a she-wolf. For ten points each,

Name this work in which Dante is led through the circles of Hell by the poet Virgil, the first section of the *Divine Comedy*.

ANSWER: **Inferno**

After crossing the Acheron river, Dante enters this “in-between” place, the first circle of Hell where the unbaptized and virtuous pagans are punished to live in a pale imitation of Heaven.

ANSWER: **Limbo**

At the other end of Hell, just before he enters the ninth circle, Dante hears the giant Nimrod cry “Raphèl mai amècche zabi àlmi,” a nonsense phrase that refers to the confusion that resulted from Nimrod’s participation in building this enormous biblical structure.

ANSWER: Tower of **Babel**

(15) As of 2018, more humans have walked on the moon than traveled deep enough to reach this region of the ocean. For ten points each,

Name this oceanic zone where no sunlight penetrates and life depends on hydrothermal vents or the constant sinking of organic matter from above. The plains named for this zone mark the ocean floor across most of the Earth.

ANSWER: **abyssal** zone (accept **abyssopelagic** zone)

Film director James Cameron crossed the abyssal zone during his 2012 record-setting dive to the bottom of this location, the deepest point in the Pacific Ocean.

ANSWER: **Mariana Trench** (accept **Marianas Trench**; accept **Challenger Deep**)

The fall of organic debris and nutrients from sunlit layers down to the abyssal zone is known as marine *this*. On land, this term describes flakes of frozen water that fall from clouds.

ANSWER: **snow**

(16) Answer the following about a poem in Lewis Carroll's novel *Through the Looking Glass* that begins, "'Twas brillig, and the slithy toves / did gyre and gimble in the wabe." For ten points each,

Name this nonsense poem, in which a hero is warned to "beware the Jubjub bird, and shun / the frumious Bandersnatch," but takes "his vorpal sword in hand" to defeat the title beast.

ANSWER: Jabberwocky

This protagonist of *Through the Looking Glass* reads the poem "Jabberwocky" in a mirror during her second trip to the bizarre world of Wonderland.

ANSWER: Alice Liddell

This nursery rhyme character interprets the nonsense words in the first stanza of "Jabberwocky" for Alice. After she recites another poem to him, this character assures Alice that the King has promised to send his horses and men to help this character in an emergency.

ANSWER: Humpty Dumpty

(17) The Zapruder film is the most complete video account of this event. For ten points each,

Name this November 22, 1963 event that targeted the 35th president of the United States.

ANSWER: assassination (or murder, shooting, etc.) of John Fitzgerald Kennedy (accept assassination of JFK; prompt on partial answers; prompt on "assassination of Kennedy")

There are many conspiracy theories regarding who shot Kennedy; the most popular account is that this former Marine shot Kennedy from the sixth floor of the Texas School Book Depository.

ANSWER: Lee Harvey Oswald

While in police custody, Lee Harvey Oswald was fatally shot by this Dallas nightclub owner.

ANSWER: Jack Leon Ruby (accept Jacob Leon Rubenstein)

(18) Bartolomeo Cristofori invented this instrument at the turn of the 18th century. For ten points each,

Name this dominant keyboard instrument with 88 keys. It is produced in grand and upright forms.

ANSWER: pianoforte

This high-end piano manufacturer produces nearly all of the pianos used in professional performance.

ANSWER: Steinway & Sons

Steinway has been granted many patents for its developments in piano design, including the sostenuto one of these features. These features, including the sustain and una corda, are found at the base of the piano.

ANSWER: pedals

(19) A 1791 *Declaration of the Rights of these people* notes that they “[have] the right to mount the scaffold” and thus must also have “the right to mount the speaker’s platform.” For ten points each,

Name this class of people whose rights were promoted by Olympe de Gouges [oh-lamp de goozh].

ANSWER: **women** (accept equivalent answers)

Olympe de Gouges was highly critical of this movement’s failure to make progress in women’s rights. Her criticisms of Maximilian Robespierre’s actions during this revolution led her to be guillotined in 1793.

ANSWER: **French** Revolution

de Gouges’ *Declaration of the Rights of Woman* was a response to the *Declaration of the Rights of Man*, a 1789 document written in part by this French general, who had spent several years in America fighting for the colonists.

ANSWER: Marquis de **Lafayette** (accept Marie-Joseph Paul Yves Roch Gilbert du **Motier**)

(20) The Monsanto Company is the world’s largest supplier of seeds for this type of crop, which accounts for more than ninety percent of corn and soybeans grown in the US. For ten points each,

Give this term for a plant or animal whose DNA has been altered to improve its growth or make it resistant to disease, pests, or drought. Several nations in Europe have banned the cultivation of this type of organism.

ANSWER: **genetically modified** organisms (accept **GMOs**; accept **genetically engineered**)

Besides seeds, Monsanto’s best known product is this weedkiller that has been blamed for a decline in the monarch butterfly population. Many Monsanto crops are engineered to withstand high doses of this herbicide.

ANSWER: **Roundup** (accept **glyphosate**)

Roundup Ready crops include rapeseed, which is used to produce this vegetable oil, the second most popular in the US after soybean oil. Like olive oil, this oil is permitted to claim it reduces the risk of heart disease.

ANSWER: **canola** oil