

Round 1

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 god was challenged by an older deity to turn himself into a Hippopotamus. This god’s four children, who represent the cardinal directions, include Imsety and Hapi. Hathor used milk to heal this god’s (*) eye, which represented the sun. This god used a wooden boat painted to look like a stone to defeat his rival Seth in a race. For ten points, name this head of the Egyptian pantheon, a falcon-headed Sky God.**

ANSWER: Horus

(2) **Cajal bodies are found within these structures, several of which occupy the coenocytic hyphae [coh-en-oh-sih-tick “high”-fay] of fungi. The envelope of this structure is continuous with the rough (*) endoplasmic reticulum, and it contains a subsection where ribosomes are assembled. By definition, this structure is absent in prokaryotes, and during mitosis, the chromosomes inside this structure become visible. For ten points, name this organelle that stores DNA, the control center of a cell.**

ANSWER: cellular nucleus

(3) **In this poem, the son of Ecgtheow [“edge”-thay-oh] wills his armor to King Higelac [HIH-gah-lack]. This poem’s title king names Wiglaf his successor as he dies from injuries sustained in a dragon fight, years after he defeats a female monster in a lake near the (*) mead-hall Heorot [HAY-oh-roht]. This poem’s title Geatish [GATE-ish] warrior comes to the aid of King Hrothgar [h-ROTH-gahr] by pulling off the arm of the monster Grendel. For ten points, name this Anglo-Saxon epic poem.**

ANSWER: Beowulf

(4) **Moses Rose was labeled the “coward” of this location after refusing to cross a line in the sand. James Bowie was initially elected to lead forces at this location but, after a rowdy drunken celebration, agreed to share command with (*) William Travis. Davy Crockett was killed while defending this location during the Texan Revolution. For ten points, name this San Antonio mission, the subject of a famous rallying cry to “remember” it.**

ANSWER: The Alamo

(5) **This artist sculpted a young man clutching his head and chest in *The Dying Slave*, which was meant to stand opposite this man’s *Rebellious Slave*. Sculptures of Leah and Rachel flank a statue by this artist that depicts a man with horns who holds the (*) Ten Commandments. A marble, horned *Moses* is part of this man’s design for the tomb of Pope Julius II. For ten points, name this Italian sculptor, who depicted Mary cradling the body of Jesus in *Pietà*.**

ANSWER: Michelangelo di Ludovico Buonarroti (accept either underlined name)

(6) **The protagonist of this novel recognizes that the Baroness Sheffield is actually the wife of the Comte de la Fère when he finds a fleur-de-lis [flure-duh-lee] branded on her shoulder. In this novel, the Duke of Buckingham foils a plan by (*) Milady de Winter to expose his affair with Queen Anne on the orders of Cardinal Richelieu, and is aided by Athos, Porthos, and Aramis. For ten points, name this novel by Alexandre Dumas [doo-MAH] about three swordsman and their friend d'Artagnan [dar-TAN-yan].**

ANSWER: The Three Musketeers (accept Les trois mousquetaires)

(7) **A scintillator generates these particles, which lose energy by scattering in the Compton effect. Two of these are produced during electron-positron annihilation, and when fired at a metal, these particles cause (*) electrons to be ejected. These particles' energy equals their frequency times Planck's constant. They lack both charge and rest mass, but are the force carriers of electromagnetism. These particles travel through a vacuum at nearly three times ten to the eighth meters per second. For ten points, name these particles of light.**

ANSWER: photons

(8) **While running for President, Ross Perot warned that this deal would cause a “giant sucking sound.” The Zapatistas opposed this agreement, which was criticized for leading to the rise of *maquiladoras*, (*) factories that import parts and export finished goods. In September 2018, the three countries involved in this deal agreed to replace it with the USMCA. For ten points, name this 1994 economic agreement between Mexico, Canada, and the US.**

ANSWER: NAFTA (or North American Free Trade Agreement)

(9) **In a show about these creatures, Chloe Park befriends three of these animals who often form a “stack” for transportation. Michael Bond created a fictional one of these animals who is adopted by the Brown family after being found near a London (*) train station. Ewan McGregor plays a character who reunites with a “silly old” one of these animals years after leaving the Hundred Acre Wood in 2018's *Christopher Robin*. For ten points, what type of animal are the literary characters Paddington and Winnie the Pooh?**

ANSWER: bears (accept We Bare Bears; accept Paddington Bear; accept Pooh Bear)

(10) **Engineers in this country developed a stone-piling technique that mimics burdock blossoms and uses pebbles, not mortar, to fill in cracks between rocks; that method was used to build a castle that had its (*) *tenshu* [ten-shoo] destroyed in 1615. A shrine in this country has a red gate that appears to float during high tide. The Temple of the Golden Pavilion, or Kinkaku-Ji [keen-kah-koo-jee], is a Zen Buddhist temple in, for ten points, what country, the home of the Ise [ee-say] Shrine and Osaka Castle?**

ANSWER: Japan (accept Nippon-koku; accept Nihon-koku)

(11) **It is not a volcano, but the “blister” type of this feature is caused by the uplift of gases trapped between lava layers. The Villa Luz one in southern Mexico contains a stream of sulfuric acid, and most others are located in areas of (*) karst terrain. Specialized troglodyte species can be found within these features whose dripstone speleo-thems are the result of dissolving limestone. For ten points, name this kind of geologic feature that often contain stalagmites and stalactites, such as the Carlsbad Caverns.**

ANSWER: cave (accept cavern until mentioned)

(12) **In a novel by this author, the title demon writes a series of letters to his nephew Wormwood. In addition to *The Screwtape Letters*, this man wrote a novel in which a girl is invited to tea by a (*) faun who she meets at a lamppost, and the siblings Peter, Susan, Edmund, and Lucy meet Aslan and rule the title location.** For ten points, name this author whose novel *The Lion, the Witch, and the Wardrobe* is part of *The Chronicles of Narnia*.

ANSWER: Clive Staples “C.S.” Lewis

(13) **Portions of this religion’s teachings were recorded by Ammaron and abridged by a Nephite who lends his name to this religion’s core beliefs. Sets of large and small golden plates delivered by the angel (*) Moroni to this religion’s founder, Joseph Smith, in New York.** For ten points, name this group of churches that follow the teachings of the Book of Mormon.

ANSWER: Latter-Day Saint movement (accept Church of Jesus Christ of Latter-day Saints; accept LDS church; accept Mormons or Mormonism until “Mormon” is read)

(14) **A plan for this type of program was opposed by the “Harry and Louise” ads, and failed in 1994 despite the support of First Lady Hillary Clinton. The 2012 Supreme Court case *NFIB v. Sibelius* upheld a law that reformed this service. The (*) single-payer option would let taxes pay for this service, but that idea was not included in negotiations for the PPACA in 2010.** For ten points, name this service that would be reformed by proposals like “Medicare for All.”

ANSWER: healthcare (accept any additional or related information; accept Obamacare after “2012” is read)

(15) **A movement titled for this figure includes a slow section that was adapted for the hymn “Thaxted.” Johann Salomon nicknamed a composer’s forty-first symphony after this figure. In another work, a movement after (*) “Mercury, the Winged Messenger” is named for a “Bringer of Jollity” with this name.** For ten points, give this shared name of Mozart’s final symphony, a movement of Gustav Holst’s *The Planets*, and the chief Roman god.

ANSWER: Jupiter (accept Jupiter, the Bringer of Jollity; accept Jupiter Symphony)

(16) **The isoelectric point is a value of this quantity such that a peptide has a net neutral charge. This quantity can be determined via the Henderson-Hasselbalch equation, and it is plotted on the y-axis of a (*) titration curve. Buffer systems resist changes to this quantity, an increase in which can turn the indicator phenolphthalein [fee-nolf-thay-leen] from colorless to pink.** This quantity is calculated as the negative logarithm of hydrogen ion concentration. For ten points, name this quantity, the measure of acidity, which is seven for pure water.

ANSWER: pH [P-H] (prompt on descriptions like “acidity” or “basicity”)

(17) **This leader proposed the “Percentages” agreement, which divided up Eastern Europe into spheres of influence. This man led the “caretaker ministry” after abruptly resigning to force new elections. Clement Attlee replaced this man at the (*) Potsdam Conference after the Conservatives were voted out in July 1945.** This politician met with Stalin and Roosevelt at Yalta to discuss Allied strategy. For ten points, name this Prime Minister of the UK during World War II.

ANSWER: Winston Churchill

(18) **This mathematician described a method of counting the number of possible positive and negative roots of a polynomial in his Rule of Signs. This 17th-century thinker developed analytic geometry, which uses formulas, coordinates, and computations to study geometry. The (*) x - y coordinate plane is named for, for ten points, what French mathematician whose philosophical work includes the statement “I think, therefore I am”?**

ANSWER: René Descartes [day-cart]

(19) **A river on this continent contained a set of seven cascades known as the Guaira Falls before it was destroyed by the Itaipu [it-EYE-pu] Dam. The boto river dolphins live in the (*) Orinoco River on this continent. The Paraná River forms the Rio de la Plata when it meets with a river named for one of this continent’s twelve countries. For ten points, name this continent where a massive rainforest surrounds the Amazon River.**

ANSWER: South America

(20) **A work narrated by this character was allegedly plagiarized from *The Vicar of Weibby*. In another work, this character says “All I wanted was to go somewheres” while complaining about being scolded by Miss (*) Watson. This boy meets the Duke and the Dauphin while rafting down the Mississippi river with the slave Jim. For ten points, name this narrator of *Tom Sawyer, Detective*, a Missouri boy created by Mark Twain.**

ANSWER: Huckleberry “Huck” Finn (accept any underlined name)

Bonuses

(1) James Blake called for the police to arrest this woman, whose complaint was ultimately addressed by the Supreme Court case *Browder v Gayle*. For ten points each,

Name this civil rights activist who, on December 1, 1955, refused to give up her seat on a city bus.

ANSWER: Rosa **Parks**

Parks protested this Alabama city's laws regarding bus segregation. Four days after she was arrested, a year-long boycott of this city's bus system began.

ANSWER: **Montgomery**

At the time of her protest, Parks worked as secretary for her local chapter of this national group, which was co-founded by W.E.B. Du Bois to fight for the racial equality and political rights.

ANSWER: **NAACP** (or **National Association for the Advancement of Colored People**)

(2) This god once proudly boasted he could devour everything before apparently being bested by a little boy and his reed. For ten points each,

Name this god who utilized a hamsa as his vahana and who wields, among other things, a scepter and a water jug.

ANSWER: **Brahma** (accept **Brahm**; do not accept or prompt on "Brahman")

Brahma is the god of this concept. He performs this action cyclically, to regenerate the world after its destruction.

ANSWER: **creation**

In some stories, Brahma was himself created from one of these sacred flowers, which had grown out of the navel of Vishnu. Brahma's wife, Saraswati, is associated with the white version of this water flower.

ANSWER: **lotus** (accept **Nelumbo nucifera**; accept Indian **lotus**; accept **bean of India**; accept **Egyptian bean**)

(3) This object appears in the Bayeux Tapestry and probably inspired the Star of Bethlehem in Giotto's *Adoration of the Magi*. For ten points each,

Identify this comet, named for an English astronomer, that last passed near Earth in 1986. Spacecraft from multiple countries have confirmed the "dirty snowball" model of this comet.

ANSWER: **Halley's comet**

With an average of 76 years, Halley's comet is considered to have a short one of these quantities, the time needed for an object to complete one orbit around the Sun.

ANSWER: **period**

The shape of Halley's orbital path suggests it was once a long-period comet that originated from this spherical region more than fifty thousand astronomical units from the Sun. This region marks the limit of the Sun's gravitational influence.

ANSWER: **Oort cloud**

(4) This author wrote the short story “Ligeia,” whose title character composes the poem “The Conqueror Worm” as she dwells on her impending death. For ten points each,

Name this American author, who also wrote about the deaths of young, beautiful women in “Ulalume” and a poem whose title character is chilled and killed by jealous angels.

ANSWER: Edgar Allan **Poe**

In this poem by Poe, a “wind came out of the cloud by night, / chilling and killing” the title woman while she is shut up in a sepulchre in a “kingdom by the sea.”

ANSWER: **Annabel Lee**

In this Poe poem, a scholar mourns the death of a young woman named Lenore while the title bird perches “on a bust of Pallas” and repeatedly taunts him with the word “Nevermore.”

ANSWER: The **Raven**

(5) A mirror of this element on the inside of a test tube indicates the presence of aldehyde groups in the Tollens’ test. For ten points each,

Name this element with atomic number 47 and symbol Ag [A-G]. When alloyed with copper in jewelry this element is called sterling.

ANSWER: **silver**

Because the Tollens’ test can distinguish aldehyde functional groups from ketones, it belongs to this branch of chemistry that studies carbon compounds. Aromatic molecules like benzene are also studied in this field.

ANSWER: **organic** chemistry

To prepare the reagent for a Tollens’ test, silver nitrate must first be mixed with this strong base sometimes called lye. This base is used to manufacture soap, and is the major ingredient in alkaline drain cleaner.

ANSWER: **sodium hydroxide** (accept **NaOH**)

(6) The protagonist of this work blinds the Cyclops Polyphemus [poly-FEEM-us], is trapped on an island with Calypso, and evades the sea monster Scylla [sill-ah]. For ten points each,

Name this work in which the title warrior undertakes a long journey to return to his home in Ithaca after the Trojan War.

ANSWER: The **Odyssey**

In the *Odyssey*, this wife of Odysseus avoids choosing a suitor by weaving and unweaving a burial shroud meant for Odysseus’s father.

ANSWER: **Penelope**

One of Penelope’s suitors plans to kill this man, her son. This boy later helps his father kill the suitors after Odysseus returns to Ithaca.

ANSWER: **Telemachus** [TELL-uh-MAH-kuss]

(7) Hubris is one of the leading causes of death in Greek myth. For ten points each,

While trying to escape from Crete with artificial wings, this boy ignored warnings to not fly too close to the sun. As a result, the wax holding the feathers together melted, causing him to fall and drown in the sea.

ANSWER: Icarus

This master craftsman, Icarus's father, was locked away in Crete with Icarus after King Minos ordered him to build the Labyrinth.

ANSWER: Daedalus

The Labyrinth was made to house this creature that had the head of a bull and body of a man. This creature was eventually killed by Theseus.

ANSWER: Minotaur

(8) When a square pyramid is cut by a plane parallel to its base, the frustum created below has two square sides on top and bottom, and four of these shapes as its lateral sides. For ten points each,

Name this type of quadrilateral that has one pair of parallel sides and, usually, one pair of non-parallel sides.

ANSWER: trapezoid

If a trapezoid's non-parallel sides are of equal length, it is classified by this term. Similarly, a triangle that has exactly two sides of equal length is known by this term.

ANSWER: isocetes ["eye"-SAH-seh-leez] (accept isocetes trapezoid and/or triangle)

If the parallel sides of a trapezoid are labeled a and b , the area of the trapezoid is equal to its height multiplied by this operation on the two side lengths a and b . You can give your answer as a formula, or you can give a description.

ANSWER: the average of a and b (accept the arithmetic mean of a and b ; accept a plus b , all over 2; accept descriptions like "add the two sides together and cut in half")

(9) In 1898, Otto von Bismarck predicted the fall of this country, noting that "Jena [yay-nuh] came 20 years after the death of Frederick the Great; the crash will come 20 years after my departure." For ten points each,

Name this country that was led in World War I by Kaiser Wilhelm II, who abdicated after this country lost the war.

ANSWER: Germany (accept German Empire)

After World War I, the Allies forced Germany to pay stiff reparations and form a republic, which became named for this German city.

ANSWER: Weimar Republic ([vye-mar], but be lenient)

At the end of the war, the German army was ravaged by this disease, which killed over three percent of the world's population. The Allied armies were ravaged as well, but Allied propaganda worked to hide that fact at home; as a result, this disease was named for neutral Spain, where there weren't any censors.

ANSWER: Spanish flu (accept influenza; accept H1N1)

(10) Many composers from this country were inspired by the style of its composer Mikhail Glinka. For ten points each,

Name this home country of the composers of *Scheherazade* and *Pictures at an Exhibition*, Nikolai Rimsky-Korsakov and Modest Mussorgsky, who collaborated in the late 19th century.

ANSWER: Russia (accept Russian Empire)

This nationalist group of Russian composers was founded by Mily Balakirev and included Rimsky-Korsakov and Mussorgsky.

ANSWER: Mighty Five (accept The Five; accept Mighty Handful or Moguchaya kuchka)

In contrast to the nationalist music of the Five, this Russian composer was influenced by western European sounds in creating works such as *Swan Lake* and *The Nutcracker*.

ANSWER: Pyotr Ilyich Tchaikovsky

(11) In this novel, Ralph morosely declares, “That was murder” after participating in the death of Simon at a dance held by Jack’s bloodthirsty tribe. For ten points each,

Name this novel by William Golding about a group of boys stranded on a deserted island, in which Piggy insists that Simon was “batty” and that his death was an accident.

ANSWER: Lord of the Flies

In *Lord of the Flies*, Ralph, Piggy, and this pair of twins agree to say that they all left the dance early, before Simon was killed. These two boys remain loyal to Ralph after the other boys join Jack’s tribe, even though Ralph had scolded these twins for letting the signal fire go out.

ANSWER: Samneric (accept Sam and Eric; accept Eric and Sam; prompt on “Sam” or “Eric” alone)

As he reflects on losing all of his followers to Jack, Ralph bitterly says that at least he still has this object, the symbol of his former leadership. This object is shattered by Roger near the end of the novel.

ANSWER: conch (prompt on “shell” or “seashell”)

(12) Three thousand people live on Wheeling Island in this river, which is formed from the confluence of the Allegheny and Monongahela [muh-non-gah-HEE-lah] rivers. For ten points each,

Name this river that flows from Pittsburgh to the Mississippi River, forming the southern borders of three states along its path.

ANSWER: Ohio River

This third-largest city in Ohio is its largest on the banks of the Ohio River. This city was named for a society of Revolutionary War veterans that was first led by George Washington.

ANSWER: Cincinnati

This Illinois town is where the Ohio River meets the Mississippi. Its name reflects a tradition of comparing the Ohio and Nile Rivers, as many towns near the Ohio River delta were named after ancient Egyptian cities.

ANSWER: Cairo ([CAY-roh], but be lenient)

(13) The midwestern fast food chain Culver's sells a "butter" version of this foodstuff. For ten points each,

Name this cornerstone of American cuisine that is usually topped with American cheese. In a recent trend in fast food, the meat in this sandwich is "smashed" against the griddle to create a crispy patty.

ANSWER: hamburger (accept cheeseburger)

This California-based chain sells "animal style" burgers, in which the meat is cooked in mustard and topped with grilled onions, pickles, and "spread." Until 2004, this chain allowed customers to order burgers with unlimited patties.

ANSWER: In-N-Out Burger

The title of "best fast food burger in America" is often contested by Culver's, In-N-Out, and this San Antonio-based chain. This chain, distinguished by its unique white and orange color scheme, also serves taquitos and Texas toast.

ANSWER: Whataburger

(14) Answer the following about famous archaeological finds in Egypt, for ten points each.

The 1799 discovery of this large fragment of a black stele [stee-lee] allowed scholars to understand hieroglyphs, since it included Greek, Demotic, and hieroglyphic translations of a law.

ANSWER: Rosetta Stone

In the mid-19th century, Alexander Rhind purchased a recently-unearthed three-thousand-year-old mathematical text written on this material, which is made from a reedy sedge plant that was prominent in Egypt before the introduction of paper.

ANSWER: (Rhind) papyrus

This British archaeologist led the 1922 excavation of King Tut's tomb in the Valley of the Kings, with funding from Lord Carnavon.

ANSWER: Howard Carter

(15) By one definition, the hydraulic press is an example of this kind of device because it simply changes the magnitude of a force. For ten points each,

Identify this group of devices that change the direction of a force or otherwise make work easier. The classic list of these includes the lever, pulley, and inclined plane.

ANSWER: simple machines (prompt on "machine")

This type of simple machine transfers a force between two rotating parts. Gear drives and doorknobs operate using this simple machine.

ANSWER: wheel and axle

Dividing the radius of the wheel by the radius of the axle yields this quantity for the machine. This is the factor by which the applied force is amplified and indicates the effectiveness of the machine.

ANSWER: ideal mechanical advantage (accept IMA)

(16) One of these places is depicted in a series of paintings of the Gare Saint-Lazare [gahr sont-lah-ZAHR]. For ten points each,

Name these locations. One of these places in Paris was converted into the Musée d'Orsay [moo-ZAY dohr-SAY], and is home to a large collection of impressionist work.

ANSWER: train stations

The Musée d'Orsay includes many paintings executed by this artist, who created series of paintings depicting the Gare Saint-Lazare, hay bales, and the Rouen Cathedral [roo-ON Cathedral]. This artist's painting *Impression, Sunrise* gave its name to the Impressionist movement.

ANSWER: Claude Monet (accept Oscar-Claude Monet; do not accept or prompt on "Manet")

Another series of paintings by Monet includes hundreds of depictions of these floating flowers near the Japanese-style bridge in his garden in Giverny.

ANSWER: water lilies (accept water lily; accept nymphéas)

(17) The *Arbella* was one of eleven ships that traveled to this colony in the early 17th century under the guidance of John Winthrop. For ten points each,

Name this colony in New England where early settlers developed towns like Salem. You can give either its original colonial name or the name of the modern-day state.

ANSWER: Massachusetts (accept the Massachusetts Bay Colony; accept Province of Massachusetts Bay)

In 1686, the unruly colonists in Massachusetts were brought into the Dominion of New England by this king, the last Catholic king of England. Two years later, this man was ousted in the Glorious Revolution.

ANSWER: James II of England (accept James VII of Scotland; prompt on James; do not accept or prompt on James VII)

In 1691, the Massachusetts Bay Colony was formally combined with this colony that had controlled Cape Cod since 1620, when the *Mayflower* landed there and founded it.

ANSWER: Plymouth Colony

(18) This man claimed that he "went to the woods to live deliberately." For ten points each,

Name this author of *Civil Disobedience*, who tried to live a simpler life by building a shack near a pond on the property of fellow Transcendentalist Ralph Waldo Emerson.

ANSWER: Henry David Thoreau

Thoreau described his experiences camping in Emerson's back yard in this Transcendentalist work, named for the pond by which he lived.

ANSWER: Walden

In a section of *Walden* titled "The Village," Thoreau is detained for failing to pay one of these government-imposed fees. In *Civil Disobedience*, Thoreau defended his decision not to pay these fees to the government, since he felt that paying them would help fund the Mexican-American War.

ANSWER: poll taxes

(19) Excavation of the Riversleigh World Heritage Site has revealed that Australia once contained a human-sized, saber-toothed, carnivorous species of this animal. For ten points each,

Name this animal, a national symbol of Australia, known for its long legs and hopping method of locomotion. Males of this species can balance on their tails during boxing fights over females.

ANSWER: **kangaroo**

The kangaroo, wombat, koala, and other native mammals of Australia belong to this taxonomic group that carries developing young in an external pouch.

ANSWER: **marsupials** (accept **Marsupialia**)

The nearly identical anatomical and behavioral traits shared by marsupials like the sugar glider and placental mammals like the flying squirrel can be explained by this type of evolution, in which organisms in similar niches develop similar adaptations.

ANSWER: **convergent** evolution

(20) Answer the following about deadweight loss, for ten points each.

Deadweight loss is a concept studied in this social science, the study of how goods and services are made, used, and allocated in a community. American thinkers in this field include Milton Friedman and Paul Krugman.

ANSWER: **economics**

Deadweight loss is an inefficiency in market allocation that occurs when markets are not in this state of balance between competing market forces.

ANSWER: **equilibrium** (accept additional information, like market **equilibrium**, economic **equilibrium**, etc.)

Deadweight losses are commonly studied in the context of this economic situation, in which one firm has total control over the sales of a particular good.

ANSWER: **monopoly** (accept word forms)