## Round 11

Brad Fischer $\bullet$ Clare Keenan • Alec Krueger •Lauren Onel $\bullet$ Noah Prince Allison Salach • Zohra Sattar • Kristin Strey • Tyler Vaughan

## Tossups

(1) The majority of these animals have anisodactylic toes and are called passerines. Though these organisms evolved independently of mammals, they are still endothermic vertebrates with four-chambered hearts. Unlike their ancestor (*) Archaeopteryx, these migratory animals lack teeth. Hard eggs and light skeletons are characteristics of, for ten points, what class of feathered animals that includes the flightless cassowary and ostrich?

ANSWER: birds (accept Aves)
(2) This man described how "some blue-eyed devil [...] had imposed" his ancestors with a slavemaster name in an autobiography co-written by Alex Haley. In March 1964, this man announced his break with Elijah (*) Muhammad's movement, and less than a year later, he was killed by members of that movement. For ten points, name this African-American activist and one-time member of the Nation of Islam who replaced his birth surname, Little, with a single letter.

ANSWER: Malcolm $\underline{\mathbf{X}}$ (accept Malcolm Little before it is read; accept el-Hajj Malik el-Shabazz)
(3) In this poem, Death plays a dice game against Life-in-Death, who sees "four times fifty living men [...] dropped down one by one" although a "thousand slimy things / lived on; and so did I." The title character of this long poem tells the $\left(^{*}\right)$ Wedding Guest about shooting an albatross, which leads to there being "water, water, every where, / Nor any drop to drink." For ten points, name this poem about a sailor written by Samuel Taylor Coleridge.

ANSWER: The Rime of the Ancient Mariner
(4) This actress won an Oscar for a role in which she notes "It can still be a date if you order Raisin Bran." She earned her third Best Actress nomination for playing the inventor of the Miracle Mop, Joy Mangano, in a 2015 film, and stars opposite Chris Pratt in a film set on the $\mathbf{(}^{(*)}$ Avalon, a colony ship that woke them up too soon. Passengers stars, for ten points, what actress who played Katniss Everdeen in the Hunger Games films?

ANSWER: Jennifer Lawrence
(5) Ossian supposedly wrote the poems containing this country's myths. Sadb, a woman turned into a deer, was the wife of a hero from this country, who will sleep until this country's greatest need, and who burned his finger while cooking the (*) Salmon of Knowledge. Morrigan flies over battlefields in stories from, for ten points, what country in the British Isles, whose myths include the tales of Finn MacCool and the Ulster Cycle?

ANSWER: Ireland
(6) This author's novels include Crabwalk, and he parodied Heidegger's Being and Time in a novel about Walter Matern, Dog Years. This author wrote about "The Great Mahike" in Cat and Mouse, and about a man in a mental hospital who can break glass with his voice and stopped growing at the age of three. (*) Oskar Matzerath is the protagonist of the first novel of this magical realist's Danzig Trilogy. For ten points, name this German author of The Tin Drum.

ANSWER: Günter Wilhelm Grass
(7) This work's opening scene sets verses from Isaiah, using word painting on the phrase "the crooked straight." This work later notes that "the kingdom of this world is become the kingdom of our Lord." According to legend, when this work premiered in (*) London, King George II stood during a climactic song that notes "He shall reign for ever and ever." For ten points, name this oratorio, composed by George Frederic Handel, famous for its Part 2 finale, the Hallelujah Chorus.

ANSWER: Messiah
(8) This force and gravity govern Atwood machines. The stress in a bar can be computed as this force divided by the cross-sectional area. This force is drawn into free body diagrams, because it balances gravity when masses are (*) suspended by cables. Hooke's Law states that this force in a spring is proportional to displacement, and it is the opposite of compression. For ten points, name this force that pulls ends of a string apart.

ANSWER: tension
(9) For brokering the end of this event, Lester Pearson was awarded the Nobel Peace Prize. Anthony Eden resigned as Prime Minister in the wake of this event, which was opposed by both the US and USSR. This event began with Israeli, French, and British forces invading the (*) Sinai Peninsula, and ended with a ceasefire after nine days. For ten points, name this 1956 crisis over control of a man-made waterway connecting the Mediterranean and Red Seas through Egypt.

ANSWER: $\underline{\text { Suez }}$ Crisis (accept any description of a controversy affecting the $\underline{\text { Suez Canal) }}$
(10) The eastern end of this gulf is home to Kotlin Island, on which the port city of Kronstadt was built. Tallinn lies on the southern shore of this gulf. This arm of the Baltic Sea extends east to Neva Bay and the city of St. Petersburg, and it is nestled between (*) Estonia to its south and a Scandinavian country to its north. For ten points, name this European gulf whose shoreline includes its namesake country's capital, Helsinki.

ANSWER: Gulf of Finland
(11) A member of this family married Joanna, who was declared mad in 1506. This family led the German Confederation until they lost the Seven Weeks War. A member of this family lost control of (*) Silesia to Frederick the Great. Inbreeding within this family created a distinctive jawline, as seen in Charles II of Spain. Maria Theresa was a member of, for ten points, what Austrian family that controlled Spain and the Holy Roman Empire?

ANSWER: Habsburg (accept Hapsburg; accept House of Lorraine)
(12) Before this play begins, the protagonist's husband, Allan Grey, kills himself after his wife learns he is gay. The protagonist's boyfriends include Shep Huntleigh and Mitch Mitchell, and she is nearly raped by her brother-in-law, (*) Stanley. This play is set in a New Orleans neighborhood where Stella Kowalski’s sister declares she has "always depended on the kindness of strangers." For ten points, name this play about Blanche DuBois, written by Tennessee Williams.

ANSWER: A Streetcar Named Desire
(13) This civilization's thinkers developed a belief in material monism, the idea that all objects in the world are made of a single "first element"' One such thinker from this civilization, (*) Anaximenes [ah-nax-ih-menees], believed that that element was air; another thinker, Thales [thay-lees], believed it was water. For ten points, name this civilization whose natural philosophers from Miletus inspired its later schools, such as the Lyceum of Aristotle in Athens.

ANSWER: ancient Greece (accept Miletus until it is read, but do not accept other specific Greek city-states)
(14) A textbook analysis of these reactions is often depicted in the two halves of a Galvanic cell. The mnemonic "OIL RIG" describes the process of these reactions. Decomposition is an example of this type of reaction, as is $\mathbf{(}^{*}$ ) combustion, because electrons are transferred from carbon to oxygen in the air. For ten points, name this type of chemical reaction in which oxidation states change, named for the pair of half-reactions that compose them.

ANSWER: redox reactions (accept reduction-oxidation reactions; prompt on partial answers)
(15) This county was home to an expressionist art movement called "The Bridge." A man with a walking stick stands on a rocky mound in this country in Wanderer above the Sea of Fog, by Caspar David Friedrich. (*) Franz Marc and several Russian emigrants to this country, including Wassily Kandinsky, founded a secession movement called Der Blaue Reiter [der "blue" "riter"]. For ten points, name this European country where the Bauhaus school was founded in Weimar [vye-mar] and briefly centered in Berlin.

ANSWER: Germany (accept Deutschland)
(16) In the book of Matthew, Jairus claimed that his daughter suffers from this condition before she is healed by Jesus. In John, Martha of Bethany professed her faith that Jesus could heal her brother of this condition, although he had had it for four days. To avoid this condition, Enoch and (*) Elijah rode flaming chariots to ascend bodily to Heaven, and both Lazarus and Jesus recovered from this condition. For ten points, name this fate met by Jesus after the crucifixion, the opposite of being alive.

ANSWER: death (accept word forms like being dead)
(17) This man, while imprisoned for blaspheming, wrote another controversial pamphlet, No Cross, No Crown. Shortly after this man assisted George Fox in the purchase of West and East Jersey, King Charles II granted this man a larger tract of land, where he began a (*) "Holy Experiment" for persecuted minorities, led by the Religious Society of Friends. For ten points, name this Quaker, the founder of an American colony led from Philadelphia.

ANSWER: William Penn
(18) The most recent Nobel laureate from this country wrote Red Sorghum Clan. Water Margin is an early novel about outlaws in this country, whose Four Classics include a novel in which the Monkey King is trapped under a mountain by the Buddha, titled (*) Journey to the West, and the Romance of the Three Kingdoms. A poet from this nation, Li Po, wrote during this country's Golden Age. For ten points, name this large Asian nation, whose Tang dynasty was known as its Golden Age.

ANSWER: People's Republic of China (accept Zhongguó or Zhonghuá Rénmin Gònghéguó; accept PRC)
(19) Jared Diamond discussed how this process, as part of a general exploitation of resources, doomed the Rapa Nui on Easter Island. The Sumatran oranguatan has become endangered due to this process, which is common in Indonesia as ( ${ }^{*}$ ) palm oil consumption has increased. For ten points, name this ecologically-dangerous process in which a tree-heavy biome is cleared and converted to human use, a process that is currently endangering the Amazon.

ANSWER: deforestation (accept word forms and equivalents that describe any type of forest being cleared or otherwise artificially destroyed; prompt on clearing before "cleared" is read; do not accept or prompt on natural processes like wildfires that may have the same effect)
(20) This integer is the smallest abundant number, as well as the square root of the largest perfect square in the Fibonacci sequence. A polyhedron with six vertices and eight faces will have this many edges. This value, represented in hexadecimal as (*) "C," is the number of edges on a cube and the number of faces on a dodecahedron. For ten points, name this smallest integer divisible by both 4 and 6 , the number of items in a dozen.

ANSWER: twelve

## Bonuses

(1) For ten points each, answer the following about French colonization of North America.

This large region, which stretched from modern-day New Orleans into Canada, was explored by Jolliet and Marquette and purchased by Thomas Jefferson in 1803.

ANSWER: Louisiana (accept Louisiana Purchase; prompt on New France)
In the 17 th century, several dozen members of this group of French Protestants settled in South Carolina. Tolerance of these people in France was briefly granted by the 1598 Edict of Nantes [nahnt].

## ANSWER: Huguenots

This French colony in what is now the maritime provinces of Canada fell into British hands during the French and Indian War, after which many French exiles re-settled in Louisiana, becoming known as "Cajuns."

## ANSWER: Acadia

(2) Boo! Answer the following about the supernatural in English literature, for ten points each.

At the beginning of this Shakespeare play, the title prince of Denmark meets the ghost of his father, who had been killed by King Claudius. To expose Claudius's guilt, the prince feigns insanity around Ophelia and Gertrude, and questions whether it is better "to be or not to be" in this play.

ANSWER: The Tragedy of Hamlet, Prince of Denmark
In this author's only novel, The Picture of Dorian Gray, a portrait painted by Basil Hallward ages while its subject remains young. This man also wrote satirical plays like The Importance of Being Earnest.

ANSWER: Oscar Fingal O'Flahertie Wills Wilde
In this Henry James novel, the ghosts of Peter Quint and Miss Jessel haunt Miles, Flora, and their governess.
ANSWER: The Turn of the Screw
(3) Giovanni Schiaparelli's [sk'yah-pa-relli's] discovery of these structures in 1877, and the ensuing mistranslation from his Italian, inspired many science fiction writers to speculate about the existence of life. For ten points each,

Name these hypothesized paths that were supposedly caused by the flowing of liquid water. The Mariner missions proved that these canyon-like natural features did not exist.

ANSWER: canals or channels (accept canali; accept, but do not otherwise reveal, descriptions of canals on Mars)
Schiaparelli's canals were discovered on this "Red Planet," which is orbited by Phobos and Deimos.

## ANSWER: Mars

The mistake of the canals was deemed to be one of these tricks of the eye. The "Face on Mars" is another one of these images, which the brain interprets as something it is not.

ANSWER: (optical or visual) illusion
(4) In a Gottfried Helnwein parody of this painting titled Boulevard of Broken Dreams, Humphrey Bogart, James Dean, Marilyn Monroe, and Elvis Presley replace the main figures of the original. For ten points each,

Name this painting that shows three patrons of a late night diner being served by a man in white. A sign advertising Phillies cigars sits above the diner.

## ANSWER: Nighthawks

This American artist painted Nighthawks. He also painted a single attendant at the pumps in Gas, and a striped barber pole on an empty street in his Early Sunday Morning.

ANSWER: Edward Hopper
Edward Hopper also created this painting of two women wearing the same hat having a conversation at a restaurant. Part of the title of this painting can be seen on a red sign in the background.

## ANSWER: Chop Suey

(5) For ten points each, name the following European explorers of the Pacific.

In the late 13th century, this Venetian merchant saw the coast of the Pacific Ocean on his visit to China, then wrote a chronicle of his trip that inspired future explorers.

## ANSWER: Marco Polo

The South American strait connecting the Atlantic and Pacific Oceans north of Tierra del Fuego is named for this Portuguese explorer, who died in the Philippines but whose men were the first to circumnavigate the globe.

## ANSWER: Ferdinand Magellan

This British explorer mapped Newfoundland, in addition to becoming the first European to map the east coast of Australia, to circumnavigate New Zealand, and to visit Hawaii, where he was killed in 1779.

ANSWER: James Cook
(6) For ten points each, answer the following about the career of Linus Pauling.

Pauling developed this concept, the tendency of an atom to attract electrons, by introducing one of the first scales to measure it. On that scale for this quantity, fluorine has the highest value at 3.98.

ANSWER: electronegativity
Based on early, flawed images, Pauling proposed that DNA took this shape. Rosalind Franklin's images, far clearer than what Pauling used, allowed Watson and Crick to announce that DNA is shaped as a double helix instead.

## ANSWER: triple helix

Pauling attacked legitimate studies done by this premier medical research center and clinic in Minnesota for not agreeing with his studies on Vitamin C.

ANSWER: Mayo Clinic
(7) For ten points each, give the following related to the unpredictable nature of the Mississippi River.

In 1881 , the Mississippi flooded and adopted a new channel east of this state's city of Kaskaskia. Kaskaskia served as this state's first capital city, before moving to Vandalia and, later, Springfield.

## ANSWER: Illinois

This small Missouri city is found on the north shore of the Kentucky Bend in the Mississippi River. This city names a fault line that, in 1811 and 1812, erupted in a series of massive earthquakes that legendarily made the Mississippi run backward.

ANSWER: New Madrid (accept New Madrid fault (line))
The Mississippi changed course after the 1812 New Madrid earthquakes, causing the towns of Reverie and Corona in this U.S. state to end up on the Arkansas side of the river. Those towns are just north of this state's largest city, Memphis.

## ANSWER: Tennessee

(8) This novel opens with a character facing a firing squad while recalling the first time he saw ice. For ten points each,

Name this novel set in Macondo about several generations of the Buendia family. The men of the family are all named Jose Arcadio or Aureliano.

ANSWER: One Hundred Years of Solitude (accept Cien años de soledad)
One Hundred Years of Solitude was written by this Colombian author of Chronicle of a Death Foretold and Love in the Time of Cholera, who died in 2014.

ANSWER: Gabriel García Márquez (prompt on "Marquez")
In One Hundred Years of Solitude a baby with a pig's tale is consumed by these insects. Red and black insects of this type have an epic battle in miniature in a scene from Henry David Thoreau's Walden.

ANSWER: ants (accept formicidae or formicids)
(9) Seventy-five million years ago, this being killed billions of aliens by exploding hydrogen bombs inside volcanoes. For ten points each,

Name this dictator of the Galactic Confederacy. The souls of those aliens are called thetans in a 20th century religious story, in which this being is said to be locked in a mountain prison somewhere.

## ANSWER: Xenu (accept Xemu)

The Xenu story is "Incident II" in the mythos of this belief system, proposed by L. Ron Hubbard as the basis of a church he founded in the 1950s. You can give either the name of the church or the pseudoscientific philosophy it is based on.

ANSWER: (Church of) Scientology or Dianetics
This U.S. state is home to Church of Scientology headquarters near San Jacinto, and to numerous Scientology facilities in Hollywood.

ANSWER: California
(10) This process takes place across a semi-permeable membrane: that is, a barrier that allows certain molecules to pass through it. For ten points each,

Name this passive diffusion of water and dissolved particles down a concentration gradient.

## ANSWER: osmosis

Osmotic pressure is this type of property, as it depends on the quantity of solute present, not the type of solute involved.

## ANSWER: colligative property

Another example of a colligative property is the depression of this point, the temperature at which the solid-liquid phase transition takes place.

ANSWER: freezing point (accept melting point)
(11) The 2016 election's "October surprise" may have been the revelation of a 2005 conversation involving this man, then a co-host of Access Hollywood. For ten points each,

Name this man who lost his job on the Today show for having joined Donald Trump in lewd "locker room" talk promoting sexual assault.

ANSWER: Billy Bush
Early in 2016, Billy Bush was criticized for conducting a poor interview with this Team USA swimmer, allowing him to lie about being robbed at gunpoint in Rio de Janeiro.

## ANSWER: Ryan Lochte

This Today show weatherman vociferously argued with Bush over his defense of Lochte's story.
(12) In August 2016, the number of detainees at this facility dropped to 61 , but analyists remain pessimistic about its potential closure before 2017. For ten points each,

Name this controversial military prison, whose prisoners include Khalid Sheikh Mohammed, the "architect" of the 9/11 attacks. President Obama's initial campaign promises included a pledge to close this facility.

ANSWER: Guantanamo Bay (Naval Base, Detention Center, or other equivalents; accept Gitmo or GTMO)
The Guantanamo Bay detention center is located on this Caribbean island. The U.S. pays a few thousand dollars annually to lease the land at Guantanamo, but since its revolution in the 1950s, this country's Communist government traditionally refuses to cash the check.

## ANSWER: Cuba

Prison conditions at Guantanamo Bay are often compared to those of this now-closed prison in Iraq. In 2004, photo evidence of torture and abuse of prisoners at this site, as well as internal memos claiming the Geneva Convention did not apply to certain interrogations, led to heavy criticism of the Bush administration.

## ANSWER: Abu Gharib

(13) Francisco Solano López was killed in desperate fighting at the end of this war. For ten points each,

Name this 1864-1870 war, by far the deadliest in South American history, in which more than two-thirds of Paraguay's adult men died.

ANSWER: War of the Triple Alliance
Paraguay began the war with an invasion of this country's Mato Grosso province. This country, with Argentina and Uruguay, formed the Triple Alliance against Paraguay.

## ANSWER: Brazil

Solano López was killed during the Campaign of the Hills, a guerrilla campaign fought after the fall of this Paraguayan capital city.

ANSWER: Asunción
(14) A "Great" one of these in 1666 was recorded in the diary of Samuel Pepys ["peeps"], and destroyed St Paul's Cathedral and and other London landmarks. For ten points each,

Name this type of destructive event. A poem about another of these in 1666 asks God to "the world no longer let me love" since "my hope and treasure lies above," after reflecting that "my pleasant things in ashes lie."

ANSWER: fires (accept reasonable equivalents, like conflagrations; accept Great Fire of London; accept Verses upon the Burning of our House, July 10th, 1666)

The poem "Verses upon the Burning of our House, July 10th, 1666" is by this early American poet, who wrote "if ever two were one, then surely we" in "To My Dear and Loving Husband."

ANSWER: Anne Dudley Bradstreet
Anne Bradstreet's poems were collected and published, possibly without her knowledge, in a volume titled The Tenth [This] Lately Sprung Up in America. These mythical beings included Terpsichore and Thalia.

ANSWER: muses (accept The Tenth Muse Lately Sprung Up in America)
(15) For ten points each, answer the following about using mathematical formulas wisely.

The formula "area equals one-half times a times $b$ times the sine of angle $C$ " will find the area of one of these shapes, but you wouldn't use it if angle C is a right angle. Sine of 90 degrees is 1 , so that formula reduces to "the area of this shape equals one-half times base times height."

## ANSWER: (right) triangle

The distance formula, d equals the square root of the sum of the squares of the differences of the corresponding coordinates, has an undeserved reputation for being complicated; in two dimensions, the distance can be drawn as the hypotenuse of a right triangle, making the distance formula a disguised version of this formula, named for a Greek.

ANSWER: Pythagorean formula (theorem, etc.)
The quadratic formula is great for some quadratic equations, but if the equation is of the form " 1 x squared plus $\mathrm{b} x$ equals 0 ," then the two solutions are easy enough to find without it. Give either solution, in terms of b if necessary.

ANSWER: $\underline{\mathbf{0}}$ or negative $\mathbf{b}$ (only need one of the two answers to get points; if they give two answers, accept both correct answers in either order, but if two answers are given and one is incorrect, the whole answer is incorrect.)
(16) For ten points each, answer the following about the Russian composer Modest Mussorgsky.

Mussorgsky composed this tone poem, depicting Satanic rituals during a witches' sabbath on St. John's Eve, very early in his career. He was unable to work this piece into a larger work, and it was therefore never performed in his lifetime.

## ANSWER: Night on (the) Bald Mountain (accept Night on (the) Bare Mountain)

This colleague of Mussorgsky arranged "Night on Bald Mountain," and dozens of other Mussorgsky works, for orchestra. His own compositions include the Easter Festival Overture" and "Flight of the Bumblebee."

## ANSWER: Nikolai Rimsky-Korsakov

Mussorgsky's "Night on Bald Mountain" was arranged for full orchestra by Leopold Stokowski for this 1940 Walt Disney film, which also included Paul Dukas' "The Sorcerer's Apprentice."

## ANSWER: Fantasia

(17) The "dia" and "para" forms of this behavior induce fields in opposite directions of each other. For ten points each,

Name this property of materials to be attracted or repelled by a certain type of field.
ANSWER: $\underline{\text { magnetism (accept word forms; accept diamagnetism and/or paramagnetism) }}$
This "permanent" form of magnetism was first observed in iron, inspiring the prefix in its name.
ANSWER: ferromagnetism
Gauss's Law of Magnetism forbids the existence of these entities, which would be particles with magnetic charge, but no north or south ends.

## ANSWER: magnetic monopole

(18) This seer was struck blind for mediating a dispute between Hera and Zeus over the difference in experiences of men and women. For ten points each,

Name this prophetic man from Greek myth, who had spent seven years as a woman after Hera caught him striking a pair of snakes.

## ANSWER: Tiresias

Like Tiresias [tye-REE-see-us], this mythological woman was both a prophet and cursed by the gods. This Trojan princess was cursed by Apollo to make accurate predictions, but never to be believed.

## ANSWER: Cassandra

This historical Greek position was held by a series of priestesses sat on a three-legged stool in their role as this oracle. This oracle may have been "inspired" by toxic gasses that rose through a fissure under the Temple of Apollo.

ANSWER: Pythias (accept Oracle at Delphi)
(19) This man wrote a poem in which Gunga Din [gun-gah deen] is called a "squidgy-nosed old idol" but is ultimately declared "a better man than I" after he takes a bullet for the speaker. For ten points each,

Name this author who wrote about the life of English people in colonial India in poems like "The White Man's Burden" and a collection of tales about "Toomai of the Elephants," "Rikki-Tikki-Tavi," and a boy who is raised by wolves and battles the tiger Shere Khan.

ANSWER: (Joseph) Rudyard Kipling
In this collection of stories by Kipling, the human child Mowgli is raised by wolves and has adventures with the panther Bagheera and the bear Baloo.

ANSWER: The Jungle Book
Kipling also wrote this poem that advises to "keep your head when all about you / are losing theirs" and tells the addressee that, should he follow this poem's advice, he will "be a Man, my son!"

ANSWER: If-
(20) The only conviction stemming from this event was a life sentence for Lieutenant William Calley, who killed 22 people but only served a few years in house arrest. For ten points each,

Name this March 16, 1968 massacre of hundreds of unarmed civilians by U.S. Army soldiers.
ANSWER: My Lai [mee lie] massacre (accept Songme Massacre)
The My Lai massacre took place during this war in Southeast Asia, which lasted from 1955 until the 1975 fall of Saigon.

## ANSWER: Vietnam War

This insurgency group was supported by the North Vietnamese and fought against U.S. and South Vietnamese forces. The My Lai massacre was initially reported as a successful attack on this group's militants, rather than civilians.

ANSWER: Viet Cong (accept the People's Liberation Armed Forces of South Vietnam or PLAF; accept the National Liberation Front or NLF)

