## Round 10

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

## Tossups

(1) A poem by this man wrote about the "great chieftain o' the puddin' race" in "Address to a Haggis." This poet wishes humans could "see ourselves as others see us" after seeing an insect on a woman's church bonnet in "To a (*) Louse," and said that "the best-laid schemes o' mice an' men / gang aft agley." For ten points, name this Scottish poet of "To a Mouse."

ANSWER: Robert Burns
(2) This religion's founder may have entered a monastery under the name Abba Keddus in 1975. Bobo Ashanti and the Twelve Tribes of Israel are two "Mansions" of this religion, which refers to its home nation as "Zion." Believers in this religion honor the Lion of Judah, a title given to the Emperor of (*) Ethiopia, Haile Selassie, an embodiment of Jah. For ten points, name this religion whose adherents often wear dreadlocks and ritually consume cannabis.
ANSWER: Rastafari (accept Rastafarianism or Rastafarians)
(3) After this event, Eunice Newton Foote assisted in the publishing of its minutes and discussions. Martha Wright and 99 other participants in this event signed the Declaration of (*) Sentiments, which notes that "all men and women are created equal." Lucretia Mott was the featured speaker at, for ten points, what 1848 convention organized in upstate New York by Elizabeth Cady Stanton that served as a landmark moment in the women's rights movement?

ANSWER: Seneca Falls Convention
(4) Hydrogenating an unsaturated fat reduces these structures. These structures cannot twist, due to p-orbital overlap above and below the inter-nuclear axis. This structure exists in $\mathbf{s p}^{2}$ ["s $\left.\mathbf{p} 2 "\right]$ hybridized molecules as, for example, between (*) carbon atoms connected by one pi bond and one sigma bond. Dienes [die-eens] have a pair of these structures, which alternate in benzene. For ten points, name this type of second-order bond that covalently shares four electrons.

ANSWER: double bonds
(5) The protagonist of this work attacks Phil Connor, his wife Ona's boss, after Ona reveals that he demanded sexual favors for hiring her. At the end of this novel, a child is locked in a factory and eaten by rats. The Lithuanian immigrant (*) Jurgis Rudkus [YUR-guss RUD-kuss] attempts to support his family and ultimately becomes a socialist in, for ten points, what muckraking Upton Sinclair novel about the horrors of the Chicago meatpacking industry?

ANSWER: The Jungle
(6) In September 2016, a mural depicting this state's governor as a Klansman was replaced with one with Mickey Mouse ears, though the phrase "Racist homophobe moron governor" remained. This state's governor was criticized in January 2016 for claiming that (*)"D-Money, Smoothie, [and] Shifty [...] come up here" and "sell their heroin." Paul LePage is the current governor of, for ten points, what New England state whose largest city is Portland and whose capital is Augusta?

ANSWER: Maine
(7) Harlow Shapley argued that this entity was the entire Universe at a 1920 "Great Debate" with Heber Curtis. Shortly after that debate, Edwin Hubble proved that this entity was not unique and estimated the distance to its nearest neighbor, then listed as a spiral (*) nebula in the Messier catalog. The Orion Arm is part of this system, which is on a collision course with Andromeda. For ten points, name this Local Group galaxy that contains the Solar System.

ANSWER: Milky Way (prompt on "the galaxy" before "galaxy" is read; do not accept or prompt on the solar system)
(8) This location hosts a basalt stele depicting a Babylonian king receiving a law code. The law code of Hammurabi is owned by this museum, whose Daru staircase is home to the Winged Victory of Samothrace, and its court is dominated by an (*) I.M. Pei-designed glass pyramid. Millions of visitors annually view a portrait of the smiling Lisa Gherardini in, for ten points, what Parisian museum that hosts Liberty Leading the People and the Mona Lisa?

ANSWER: Musée du Louvre
(9) A number is algebraic if it is the root of a polynomial with these numbers as coefficients. This subset of the real numbers is densely ordered and countably infinite; that is, there are infinitely many of these numbers between any two of them, and you can list them, unlike a complement set that includes (*) pi and the square root of two. For ten points, name this type of number whose decimal expansion either terminates or repeats and which can be written as a fraction.

ANSWER: rational numbers
(10) This man notes that "honor is the delight of men when they are old and useless" according to a speech recorded by Thucydides. This man's sons, Paralus and Xanthippus, died of a plague that killed him a few months later. In peaceful times, this leader hired (*) Phidias to sculpt a statue of Athena for the Acropolis. For ten points, name this statesman who delivered a funeral oration after the first year of the Peloponnesian War and led during the Golden Age of Athens.

ANSWER: Pericles
(11) An opera set in this country opens "We believed that matter can be neither created nor destroyed, but only altered in form." A leader of this country, along with his wife and an advisor, travel on the (*) Spirit of '76 in another opera. The composer of Doctor Atomic wrote On the Transmigration of Souls as a memorial for a tragedy that took place in this country in 2001. For ten points, name this home country of John Adams, the composer of Nixon in China.

ANSWER: United $\underline{\text { States of America (accept America) }}$
(12) This statement can be derived mathematically from Gauss's Law in a sphere, which explains why its namesake constant is 1 over 4 pi times the permittivity of free space. This statement was derived experimentally using a (*) torsion balance. This inverse-square law has a constant factor of 8.99 times 10 to the 9 th power. For ten points, name this physical law describing the force between charged particles, named for a French scientist.

ANSWER: Coulomb's Law
(13) This novel's protagonist learns that his sister, Gertrude, has become a prostitute after he receives a letter from Theophilus Msimangu. Mr. Carmichael defends Johannes and Absalom in court after they are accused of robbing and murdering Arthur (*) Jarvis, a white man in Johannesburg. Stephen Kumalo's son is executed in, for ten points, what Alan Paton novel set in pre-Apartheid South Africa?

ANSWER: Cry, the Beloved Country
(14) In this song's music video, a stationary crowd of people dons 3-D glasses, then lets the singer crowdsurf above them with his acoustic guitar. Its singer lists a "beautiful Castillo" [cast-ee-oh] among his possessions, then pleads in this song's chorus, "Give me one good (*) reason/why I should never make a change." For ten points, name this hit song by George Ezra, who would give up "my hidden treasure chest" and "my house in" the title European city.

ANSWER: Budapest
(15) These people were systematically burned out of their residences by Jurgen Stroop's men during a 1943 uprising. Over 900 of these people aboard the St. Louis were turned away from the United States and Canada. Millions of these people lived in (*) shtetls in Eastern Europe until they were forced into ghettos by the Gestapo. For ten points, name this religious group, six million members of which were killed in the Holocaust.

ANSWER: Jewish people (accept word forms like Jews)
(16) This city is home to Maximo Gomez Park, where people have played competitive dominoes for decades. This city's Coconut Grove neighborhood includes its highest natural point, at $\mathbf{2 4}$ feet above sea level. In March, a neighborhood in this city celebrates the (*) Calle Ocho festival; that neighborhood is the center of a community of immigrants from an island country 200 miles south. Little Havana is a neighborhood of, for ten points, what city in southeastern Florida?

ANSWER: Miami, Florida
(17) This location contains the Fields of Asphodel, and one of this land's judges, Rhadamanthus, ruled the region of Elysium in this land. Tantalus was unable to reach food or water in this location, which contains a descent into (*) Tartarus. Eating part of a pomegranate forces Persephone to stay in this location for part of every year. For ten points, name this Greek underworld ruled by a namesake death god.
ANSWER: Hades (accept Greek underworld until it is read; prompt on "underworld" alone)
(18) In 1892, revolutionaries in what is now this country founded the Katipunan society and named the exiled Jose Rizal its president. Manuel Quezon succeeded this country's first president, Emilio Aguinaldo, who had led this country's people in revolt against $\left({ }^{*}\right)$ Spanish rule and, after an 1898 war, American rule. George Dewey led the US Navy to a decisive victory against the Spanish fleet in, for ten points, what modern-day Asian country's Manila Bay?

ANSWER: Republic of the Philippines
(19) In this novel, a noisy ex-blacksmith gives up his blankets for the protagonist, who becomes a flag-bearer when the 304th regiment is sent on a suicide mission. This novel's protagonist is hit with the butt of a riffe, but Wilson thinks he was grazed by a bullet. (*) Jim Conklin and the protagonist desert a battle in this novel, in which a "tattered soldier" asks Henry Fleming to show the title wound. For ten points, name this Civil War-era novel by Stephen Crane.

ANSWER: The Red Badge of Courage
(20) During the pachytene stage of this process, chiasmata are created where non-sister chromatids exchange material. One form of this process creates three polar bodies and an (*) ovum. The products of this process only have half the original number of chromosomes, but can fuse to form a diploid zygote. For ten points, name this form of cell division that produces four haploid gametes, contrasted with a process that produces two daughter cells, mitosis.

ANSWER: meiosis (prompt on cell division before said)

## Bonuses

(1) The political philosophy of this country's 20th century dictator was outlined in The Green Book, which explained the jamahiriya system. For ten points each,

Name this African country where a "Brother Leader" guided a revolution against King Idris in 1969, then was overthrown in a 2011 civil war and replaced by a National Transitional Council.

## ANSWER: Libya

This dictator ruled Libya until Arab Spring protests and civil war toppled his government. He was captured and killed in October 2011 after which his body was displayed in a freezer for several days.

ANSWER: Muammar Gaddafi (accept Qaddafi)
In the early days of the Libyan Civil War, Gaddafi's army killed hundreds of protesters in this eastern Libyan city. On September 11, 2012, a U.S. diplomatic mission in this city was attacked by Ansar al-Sharia gunmen, who killed four Americans, including Ambassador Chris Stevens.

ANSWER: $\underline{\text { Benghazi }}$
(2) For ten points each, answer the following about heat given off during a chemical reaction.

This term describes any device that measures heat change during a reaction; examples include a "bomb" type. They generally involve a thermometer in a container of water, such that the heat given off by the reaction heats the water.

ANSWER: (bomb) calorimeter
The thermometer measures the change in this quantity, given in units of degrees Celsius.

## ANSWER: temperature

In an exothermic reaction, heat is released from the system; assuming constant pressure, this quantity for the system decreases as a result. This quantity is the measurement of the heat content of the system.

ANSWER: enthalpy (accept $\underline{\mathbf{H})}$
(3) This novel's protagonist kills Spitz and lives with John Thornton. For ten points each,

Name this novel in which Buck is kidnapped from Judge Miller's home to work in Alaska during the gold rush.

## ANSWER: The Call of the Wild

The Call of the Wild is by this American author of White Fang and The Sea Wolf.
ANSWER: John Griffith "Jack" London (accept John Griffith Chaney)
Buck is one of these animals, which frequently appear in Jack London stories. The title character of White Fang is half wolf and half one of these animals.

ANSWER: $\underline{\text { dogs (accept canis familiaris or canis lupus familiaris) }}$
(4) In 1978, this man pled guilty to cocaine trafficking charges and served over two years in federal prison. For ten points each,

Name this family-friendly comedian who played Tim "the Tool Man" Taylor on Home Improvement and voiced Buzz Lightyear in the Toy Story film series.

ANSWER: Tim Allen
In a 1994 movie, Tim Allen's character, Scott Calvin, kills this figure on Christmas Eve and is legally obliged to replace him at the North Pole.

ANSWER: Santa Claus
A 2016 viral video replaced every image file in this 1993 computer game with a picture of Tim Allen and sound file with Allen's grunt from Home Improvement. This first-person shooter, released by id Software a year after Wolfenstein 3D, is set on Mars.

## ANSWER: Doom

(5) In a painting depicting this park, a woman in pink walks a young girl in white toward the viewer and a gray-clad couple walk a monkey on a leash. For ten points each,

Name this subject of a Georges Seurat [zhorzh soo-RAHt] painting, in which small dots of paint combine to create a scene of upper- and lower-class Parisians relaxing on this park in the Seine [sen].

ANSWER: A Sunday Afternoon on the Island of La Grande Jatte (accept A Sunday Afternoon on the Isle of La Grande Jatte; accept Un dimanche après-midi à l'Île de la Grande Jatte; accept Île de la Jatte)

Seurat's A Sunday Afternoon on the Island of La Grande Jatte is an example of this artistic technique, in which dabs of pure color, instead of brushstrokes of mixed colors, create the impression of a unified whole painting.

ANSWER: pointillism (accept word forms like pointillists; accept divisionism or divisionists; accept chromoluminarism or chromoluminarists)

Pointillist works use the human eye to visually mix dots of pure color, which depends heavily on the eye's ability to see secondary colors, like purple, orange, and green, in combinations of this group of colors.

ANSWER: primary colors
(6) In this collection, a Miller tells a story in which Alisoun comically tricks her husband, John, and a student named Absalom with the help of her lover, Nicholas. For ten points each,

Name this Middle English collection, in which the Wife of Bath, a Knight, and a group of other pilgrims tell stories while resting at the Tabard Inn on the way to the shrine of Thomas Beckett.

ANSWER: The Canterbury Tales
This author helped popularize the use of Middle English, rather than French or Latin, in works of literature like Troilus and Criseyde and The Legend of Good Women, and wrote The Canterbury Tales.

ANSWER: Geoffrey Chaucer
In this Middle English long poem by Geoffrey Chaucer, the narrator follows Scipio Africanus into the Temple of Venus to witness a meeting in which birds argue about choosing their mates.

## ANSWER: The Parlement of Foules

(7) At this battle, Aristides the Just led a force that held the battlefield while the rest of the Athenians went back home to defend against a surprise landing. For ten points each,

Name this 490 BC battle that ended an invasion of Greece. Pheidippides legendarily ran some 26 miles back to Athens to deliver news of this victory.

ANSWER: Battle of Marathon
Ten years after Marathon, Xerxes [zerk-zees] the Great led a second invasion; after success at Thermopylae and Artemisium, his fleet was destroyed in this 480 BC battle in a strait west of Athens.

## ANSWER: Battle of Salamis

This empire lost at Marathon under the rule of Darius the Great and lost at Salamis under Xerxes.
ANSWER: Persian Empire (accept Achaemenid Empire)
(8) The Sigurd Stones use these written characters to tell the story of a legendary Norse hero. For ten points each,

Name this writing system used to represent ancient Germanic alphabets. These angular characters were carved into stones to record legends and myths.

## ANSWER: runes

The Sigurd Stones are runestones that tell the story of the hero Sigurd, who killed one of these mythical, firebreathing creatures.

## ANSWER: dragons

This legendary Christian martyr and patron saint of England legendarily slew a dragon as one of the Fourteen Holy Helpers.

ANSWER: Saint George
(9) California geologists lamented the June 2016 repair of a curb in Oakland because it destroyed a remarkable example of the effects of one of these systems. For ten points each,

Name these fractures in the Earth's crust, along which large sections of rock may move. Examples of these systems are the aforementioned Hayward and the San Andreas, also in California.

## ANSWER: fault line

A quick movement along a fault can release a great deal of energy, causing one of these natural disasters. A catastrophic one of these events, named for nearby Loma Prieta Peak, struck San Francisco in 1989.

ANSWER: earthquake
The San Andreas is a transform fault on the boundary between tectonic plates; the stress along the fault is caused in part by this process, in which one tectonic plate moves under another and is forced toward the mantle.

## ANSWER: subduction

(10) The Seikan Tunnel, the world's largest underwater tunnel, runs underneath the Tsugaru Strait, connecting this island with Honshu to its south. For ten points each,

Name this second largest island of a certain East Asian country. This island hosted the 1972 Winter Olympics in Sapporo.

## ANSWER: Hokkaido

Hokkaido is the northernmost of the four main islands of this country; its other major islands include Kyushu, Shikoku, and Okinawa.

## ANSWER: Japan

The Seikan Tunnel was improved in 2005 to allow Shinkansen, this type of vehicle, to travel through the tunnel.
ANSWER: high-speed train (accept bullet train; accept equivalents for train, like high-speed rail; prompt on train alone)
(11) The name for this set is derived from the Latin for "whole," and it's symbolized with a blackboard-bold Z, from the German for "numbers." For ten points each,

Name this specific type of number that includes all numbers whose decimal expansions include only zeroes after the decimal point.

ANSWER: integers
This is the only integer that is its own additive inverse.
ANSWER: zero
The set of integers has this property for addition, subtraction, and multiplication, but not division, as shown by the counterexample " 5 divided by 4 is not an integer."

ANSWER: closure (accept word forms, such as being closed under division)
(12) One of this man's first actions as President was the pardoning of all draft dodgers from the Vietnam War. For ten points each,

Name this 39th U.S. President, a Georgian peanut farmer who defeated Gerald Ford in the 1976 election.

## ANSWER: James Earl "Jimmy" Carter

Though Carter's administration has not been considered particularly successful by many historians, his postpresidency work as a negotiator and philanthropist earned him this award in 2002. Three other U.S. Presidents have earned this award: Teddy Roosevelt, Woodrow Wilson, and Barack Obama.

ANSWER: Nobel Peace Prize (prompt on partial answers)
Carter's volunteer work with this non-profit organization, which works to build affordable housing, rose its awareness worldwide.

ANSWER: Habitat for Humanity
(13) In action potentials, electrical impulses are passed between these cells through short gaps called synapses. For ten points each,

Name these cells, also called neurons, that are found within the brain and spinal cord.
ANSWER: nerve cells
An action potential travels across these long structures, carrying the impulse away from the body of the nerve cell. Like dendrites, these structures protrude from the nerve cell.

## ANSWER: axons

Axons are covered by a protective myelin sheath, which is degraded in this autoimmune disease, abbreviated MS.
ANSWER: multiple sclerosis
(14) The five-beat rhythm "triplet, quarter, quarter, two eighths, quarter" opens this piece and forms a drum ostinato in "History Has Its Eyes On You" from Act 1 of Hamilton. For ten points each,

Name this first movement of a seven-movement suite. The aforementioned rhythm evokes a militaristic motion throughout this piece, as contrasted with the "peaceful" movement that follows it.

ANSWER: Mars, the Bringer of War (accept either or both names; do not accept or prompt [and definitely do not reveal!] The Planets)
"Mars, the Bringer of War," "Jupiter, the Bringer of Jollity," and "Neptune, the Mystic" are among the seven movements of this suite. This work does not include movements for Earth or the then-undiscovered Pluto.

ANSWER: The Planets
This English composer was inspired by astrology to write The Planets.
ANSWER: Gustav Holst
(15) This man was cursed to wander the earth as punishment for committing the first biblical murder. For ten points each,

Name this son of Adam and Eve, who murdered his brother Abel in a jealous rage.
ANSWER: Cain (accept Qayin)
The Curse of Canaan was given to the son of this man, whose mysterious crime was looking upon his father's nakedness. This man was the youngest son of Noah.

## ANSWER: Ham

In the books of Matthew and Mark, Jesus placed a curse on a tree of this type after he discovered that it wasn't yet in season to bear this type of fruit.

ANSWER: $\underline{\text { fig tree }}$
(16) For ten points each, answer the following about literary diaries and memoirs.

This German teenager kept a diary while hiding in a Secret Annex in Amsterdam during World War II; her father edited and published the diary after the war.

ANSWER: Anne Frank
This author's 1972 memoir, A Circle of Quiet, breaks the usual structure of a diary by piecing together facts into a single, not-completely-true story. Her 1963 novel A Wrinkle in Time broke the then-usual structure of a children's novel by directly considering evil.

## ANSWER: Madeleine L'Engle

This rival of Lady Murasaki recorded Japanese courtly goings-on in The Pillow Book.
ANSWER: Sei Shonagon
(17) In this war, American militia were defeated at Stillman's Run, where a future President is believed to have served in burial duty. For ten points each,

Name this 1832 war in which a group of Sauk warriors, called the British Band, marched through Illinois and Wisconsin trying to find a place to resettle.

ANSWER: Black Hawk War
This 16th U.S. President served in the Black Hawk War as a captain in the Illinois militia.

## ANSWER: Abraham Lincoln

Troops under this U.S. general were prevented from assisting in the Black Hawk War by cholera. This man, known as "Old Fuss and Feathers," was highly respected for his leadership during the Mexican-American War and his development of the Civil War's Anaconda Plan.

## ANSWER: Winfield Scott

(18) This concept is described as "not optional" because "You are embarked" in Pensees [pahn-say], a posthumously-published work. For ten points each,

Name this philosophical argument, which suggests a payoff table in which infinite gain is made by believing in heaven while God exists, while mere finite gains or losses would be had if God does not exist.

ANSWER: Blaise Pascal's Wager (accept equivalent terms for wager; prompt on partial answers)
Pascal's Wager is an example of this type of rhetoric, which seeks to explain and defend an idea. Though this term usually refers to religious arguments, it also names Plato's depiction of Socrates' defense at trial.

ANSWER: apologetics (accept word forms; accept the Apology)
Pascal's Wager was an early use of this branch of mathematics within philosophy. This branch studies the likelihood of events, and is often taught within classrooms alongside statistics, in which data from this branch is often analyzed.

## ANSWER: probability

(19) John Bardeen won his second Nobel Prize for his work on these materials with Cooper and Schrieffer. For ten points each:

Name these materials which, when cooled below their critical temperature, exhibit zero electrical resistance.

## ANSWER: superconductors

The superconductor YBCO is considered "high-temperature" because it works above the boiling point of this element, meaning that its liquid form is not needed to cool it. This gas, which exists in liquid form below 77 Kelvin, is used in cryogenics.

## ANSWER: nitrogen

The B in YBCO compounds stands for this alkaline earth metal, an element that does not occur freely in nature but is often used in firework coloring and rat poison.

(20) A narrator of this poem pleads "HURRY UP PLEASE IT"S TIME" five times in its second section, "A Game of Chess." For ten points each,

Name this 1922 poem by T.S. Eliot, who ends it with the mantra "Shantih Shantih Shantih."

## ANSWER: The Waste Land

The Waste Land opens by noting "[this] is the cruellest month, breeding Lilacs out of the dead land..." A significantly less dour rhyme notes that this month's "showers bring May flowers."

ANSWER: April
The concluding stanza of The Waste Land includes a series of puzzling quotes and references, including one to this nursery rhyme about a structure "falling down falling down falling down."

ANSWER: London Bridge (prompt on "My Fair Lady")

