

# Round 1

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## Tossups

(1) **In this colony, John Peter Zenger was acquitted of libeling governor William Cosby, which helped establish freedom of the press. The Stamp Act Congress was held in this colony's Federal Hall. John Burgoyne failed to establish control of this colony's (\*) Hudson River Valley, and was defeated in this colony at the Battle of Saratoga. For ten points, name this home colony of Alexander Hamilton, where the British failed to capture the city of Albany.**

ANSWER: New York colony (accept Province of New York; do not accept or prompt on "New York City")

(2) **A character in this novel protects his sister, Georgiana, and plans to marry Catherine de Bourgh's daughter. In this novel, playboy George Wickham and nobleman Charles Bingley romantically pursue (\*) Lydia and Jane, two of the protagonist's four sisters. "A truth universally acknowledged" about marriage among the wealthy begins, for ten points, what Jane Austen novel in which Elizabeth Bennet at first dislikes, but eventually marries, Mr Darcy?**

ANSWER: Pride and Prejudice

(3) **In a common undergraduate lab, students synthesize this compound through phosphoric acid-catalyzed ester-ification. This compound's starting chemical was formerly extracted from (\*) willow bark by doctors, and its modern form was patented by Bayer. Acetyl-salicylic acid is another name for, for ten points, which NSAID [en-sed] pain reliever that can cause more gastro-intestinal side effects than ibuprofen?**

ANSWER: aspirin (accept acetylsalicylic acid or ASA before "acetylsalicylic" is read)

(4) **In the beliefs of the Latter Day Saints movement, this man was the mortal form of the angel Michael, and lived near Jackson County, Missouri. In Islam, Iblis was banished from Heaven for refusing to bow before this man. This man became the father of (\*) Seth after his eldest son committed the first murder. Cain and Abel were the sons of, for ten points, what husband of Lilith and Eve, the first man created by God?**

ANSWER: Adam

(5) **Securities backed by these products are created and sold by Fannie Mae and Freddie Mac, which were taken over by the federal government in 2008. In 2007, during the Great Recession, the "adjustable rate" type of this (\*) financial product rose too quickly for their borrowers to pay them off, leading to massive foreclosures. For ten points, give this term for a loan taken out for the purchase of a house.**

ANSWER: mortgages (accept more descriptive answers like "adjustable rate mortgage;" accept mortgage-backed securities; prompt on "home loan" or "loan")

(6) In this novel, Constance Bonacieux [boh-nah-syoo] tries to retrieve a pair of diamond studs that Queen Anne had given to the Duke of Buckingham, and a fleur-de-lis [flyoor-duh-lee] tattoo reveals that (\*) Milady de Winter is a convict. Cardinal Richelieu's plan is foiled in this novel by d'Artagnan [dar-tan-yan] and a small group of swordsmen. For ten points, name this novel by Alexandre Dumas in which Athos, Porthos, and Aramis make the pledge "one for all and all for one."

ANSWER: The Three Musketeers (accept Les Trois mousquetaires)

(7) Heron's formula calculates the area of this type of shape. The orthocenter is found at the intersection of the altitudes of this shape. If the side lengths of this shape are all different, this shape is (\*) "scalene," and if two of its sides are equal, it is called "isosceles." If this shape has a ninety-degree angle, the relative size of its sides is described by the Pythagorean Theorem. For ten points, name this polygon with three sides.

ANSWER: triangles

(8) The Lockheed WP-3D Orion is a nicknamed a "hunter" of these systems, which cannot form near the equator due to a weak Coriolis force. The Saffir-Simpson scale classifies these weather systems, which have an (\*) eyewall that drives a storm surge onto land in instances of these system classified as "Category 5." For ten points, name these violent, tropical Atlantic cyclones exemplified by Ida and Katrina.

ANSWER: hurricanes (prompt on "tropical storm" before "tropical" is read; prompt on "cyclone" before it is read; do not prompt or accept "typhoon")

(9) This nation-state's leader traditionally threw a ring from the ship *Bucentaur* into the Adriatic to perform the annual Marriage of the Sea. This republic was led by a Doge, and its namesake capital city contains the Rialto Bridge and (\*) Saint Mark's Basilica. Gondolas are flat-bottomed boats that help people move around, for ten points, what Most Serene Republic in modern Italy, whose namesake capital city was built over a complex of canals?

ANSWER: Republic of Venice (accept Most Serene Republic of Venice; accept Serenissima Repubblica di Venezia)

(10) This artist painted *Olive Trees in a Mountainous Landscape* while staying in the village of Saint-Rémy [sawn ray-mee] in an asylum. This artist left the Yellow House in Arles after having a falling out with his friend Paul Gauguin, and painted a series of (\*) *Sunflowers* after moving to France from the Netherlands. For ten points, name this artist who painted a looming cypress tree under a swirling sky in his *Starry Night*.

ANSWER: Vincent Van Gogh (accept Vincent Willem van Gogh)

(11) Systems composed of a pendulum and this device can be modeled by the Duffing equation. This device's force is equal to stiffness times extension, or "kx" [K-X], according to (\*) Hooke's law, which describes these simple harmonic oscillators. For ten points, name this device, used in trampolines and pogo sticks, that stores energy in its often-metal coils.

ANSWER: springs (prompt on "simple harmonic oscillators" or "harmonic oscillators" before "simple" is read)

(12) **An unfinished work by this composer includes a “Lacrimosa” section that was completed by Franz Süssmayr after this man died at age thirty-five. This composer wrote an unfinished *Requiem* and forty-one symphonies, the last of which is nicknamed (\*) “Jupiter.”** For ten points, name this prolific Austrian child prodigy who wrote the chamber piece *Eine Kleine Nachtmusik* [“EYE”-nah KLYE-nah NOKT-moo-zeek], which is sometimes nicknamed “A Little Night Music.”

ANSWER: Wolfgang Amadeus Mozart (accept Johannes Chrysostomus Wolfgangus Theophilus Mozart)

(13) **This literary character usurps the throne of King Pastoria, and is succeeded by Pastoria’s daughter after she escapes from the witch Mombi. This character travels from Omaha in a hot air balloon, and is apprenticed to (\*) Glinda to learn real magic, although he uses stage magic tricks to confront the Scarecrow and Dorothy.** For ten points, name this magician who rules a fantasy land in a novel by L. Frank Baum.

ANSWER: The Wizard of Oz (accept either underlined name; accept Oscar Zoroaster Phadrig Isaac Norman Henkle Emmannuel Ambroise Diggs)

(14) **According to Herodotus, the first female ruler of this civilization was the semi-mythical empress Nitocris, whom Herodotus associated with Menkaure. This civilization was ruled from Amarna by the husband of (\*) Nefertiti.** Another female ruler of this civilization, Hat-shep-sut, wore masculine clothing to represent the sun god Ra. For ten points, name this ancient African civilization that ruled the area around the Nile river.

ANSWER: ancient Egyptians (accept Old Kingdom before “Amarna” is read)

(15) **Until 1793, statues of twenty-eight kings of Judah stood along this building’s west side. Eugène Viollet-le-Duc restored this building in the 1800s, and added a spire that was destroyed in a 2019 fire. This building is known for its flying buttresses and enormous (\*) rose windows, and dominates the Île de la Cité [eel duh lah see-tay], an island in the River Seine [sen].** For ten points, name this Catholic cathedral whose name means “Our Lady of Paris.”

ANSWER: Notre-Dame de Paris (accept Notre-Dame Cathedral)

(16) **Two songs by this performer say “your silence is my favorite sound” and asks “to give your lack of interest an explanation.” With her brother, Finneas, this singer wrote “You Should See Me in a Crown,” (\*) “Wish You Were Gay,” and a song in which this woman sings “I don’t want press to put your name next to mine / we’re on different lines.”** For ten points, name this singer who performed “Therefore I Am” on the album *Happier Than Ever*.

ANSWER: Billie Eilish (accept Billie Eilish Pirate Baird O’Connell)

(17) **This deity was saved by Sigyn, who used a bowl to catch snake venom that dripped on this deity’s face. This god asked the Sons of Ivaldi to create a cap of golden hair after shaving Sif’s head. This father of the (\*) Midgard Serpent and mother of Sleipnir [SLYp-neer] dressed as a maid-servant to accompany Thor on his quest to get back his hammer.** For ten points, name this shape-shifting trickster god of Norse mythology.

ANSWER: Loki (do not accept or prompt on “Utgard-Loki”)

(18) **This novel’s protagonist escapes from slavery with Xury, whom he immediately sells as an indentured servant. While stranded near the Orinoco River, this novel’s protagonist builds a house in a cave and rescues a man he names (\*) “Friday” from local cannibals. For ten points, name this novel by Daniel Defoe in which the title sailor is returned to England after being shipwrecked for twenty-eight years on a deserted island.**

ANSWER: **Robinson Crusoe** (accept The Life and (Strange Surprizing) Adventures of **Robinson Crusoe** of York, Mariner: Who Lived Eight and Twenty Years, All Alone in an Un-inhabited Island on the Coast of America, Near the Mouth of the Great River of Oroonoque; Having Been Cast on Shore by Shipwreck, Wherein All the Men Perished but Himself. With an Account how he was at last as Strangely Deliver’d by Pyrates. Written by Himself.)

(19) **A speech by this man reflects that, if an assassination against him had succeeded, he would have been unable support the Southern Christian Leadership Conference during the Birmingham Campaign. This man gave the (\*) “I’ve Been to the Mountaintop” speech, in Memphis in 1968, the night before he was successfully assassinated by James Earl Ray. For ten points, name this civil rights leader who also gave the “I Have a Dream” speech.**

ANSWER: Martin Luther **King**, Jr. (accept **MLK**)

(20) **Larvae of the insect family *Agro-myzi-dae* are “miners” of these structures, where bundle-sheath cells are found. These structures can be “palmately compound,” and they have parallel veins in monocots. Carotenoid pigments that are (\*) yellow and orange become more prominent in these structures before they are shed by deciduous trees. For ten points, name these green plant structures that are the primary site of photosynthesis.**

ANSWER: **leaf** (accept **leaves**; prompt on “plant” before “palmately” is read)

## Bonuses

(1) The prediction of W and Z bosons in the 1960s was a major breakthrough on the path to a “Theory of Everything.” Answer these questions about unified field theory, for ten points each.

W and Z particles mediate this fundamental force responsible for beta decay. The physicists Glashow, Weinberg, and Salam successfully unified this force with electromagnetism.

ANSWER: weak nuclear force

Most attempts at a unified theory fail because of this force, which Newton used to explain the motion of planets around the Sun. In relativity, this force is a distortion in spacetime around an object.

ANSWER: gravity (accept gravitational force)

The observed decay of these positively-charged particles would be good evidence for several unified theories, but experiments suggest it may take  $10^{35}$  years [ten to the thirty-fifth years] to occur.

ANSWER: protons

(2) This leader had his uncle executed for treason in 2013 and likely ordered the assassination of his half-brother in early 2017. For ten points each,

Name this leader who met with Donald Trump to discuss denuclearization at a 2018 summit in Singapore.

ANSWER: Kim Jong-un (prompt on “Kim”)

Kim Jong-un is the Supreme Leader of the northern, communist half of this peninsula. The southern, democratic half of this peninsula is led by President Moon Jae-in [jay-inn].

ANSWER: Korean Peninsula (accept North and/or South Korea)

After the Korean War, one of these areas was established along the thirty-eighth parallel, the border between North and South Korea. Despite its name, both sides of this area are heavily guarded by soldiers.

ANSWER: Demilitarized Zone (accept DMZ)

(3) In Sergei Prokofiev’s *Peter and the Wolf*, specific instruments and instrument sections represent each character in the story. Answer the following about the instrumentation of *Peter and the Wolf*, for ten points each.

Peter himself is represented by this section of the orchestra, which includes the violins, violas, and cellos.

ANSWER: strings (accept equivalents like string section)

The wolf is represented by these brass instruments. Players balance these coiled instruments by putting a hand in the bell.

ANSWER: French horns

The Grandfather is represented by this instrument, which plays an unusually high-pitched solo at the beginning of Stravinsky’s *The Rite of Spring*.

ANSWER: bassoons

(4) A 2020 HBO series titled [this man] *Country* starred Michael K. Williams in his final TV role. For ten points each,

Name this racist horror and speculative fiction author who created horrifically unimaginable, impossibly ancient gods called the “Great Old Ones,” including Yog-Sothoth, in the magazine *Weird Tales*.

ANSWER: H.P. Lovecraft (accept Howard Phillips Lovecraft)

Perhaps the most famous of H.P. Lovecraft’s “Great Old Ones” is this underwater creature, who is often depicted with enormous wings and a face full of tentacles.

ANSWER: Cthulhu ([kah-THOO-loo], but be lenient with pronunciation)

*Lovecraft Country*’s producers included this longtime collaborator of Keegan-Michael Key. This man’s directorial debut was the 2017 horror smash hit *Get Out*.

ANSWER: Jordan Peele (accept Jordan Haworth Peele)

(5) This poem’s title figure sails between Scylla and Charybdis, and tricks the cyclops Polyphemus by pretending to be named “Nobody.” For ten points each,

Name this epic poem attributed to Homer. A Greek hero has a ten-year journey home to Ithaca in this poem.

ANSWER: The Odyssey (accept Odysseia; do not accept or prompt on “Odysseus”)

Seven of the ten years of Odysseus’s journey home are spent on the island of this nymph, the daughter of Helios.

ANSWER: Calypso

Despite his long stay with Calypso, Odysseus eventually manages to return to this woman, his wife. Odysseus prevents this woman from having to marry one of her obnoxious suitors, who wish to replace Odysseus.

ANSWER: Penelope

(6) This political activist publicly derided a “Covenant with Death” made by the American people in his Boston-based newspaper. For ten points each,

Name this Massachusetts publisher who declared “I will not retreat a single inch—AND I WILL BE HEARD” in the first issue of *The Liberator*.

ANSWER: William Lloyd Garrison

William Lloyd Garrison used *The Liberator* to champion this political cause, and had a falling out with Frederick Douglass over how to achieve this goal.

ANSWER: **abolitionism** (accept word forms like **abolitionists**; accept **emancipation** and word forms like **emancipating** slaves; accept descriptions of **abolishing slavery** or **freeing** American **slaves**)

Garrison publicly burned a copy of this document in 1854. He called this document a “Covenant with Death” and an “Agreement with Hell” for failing to outlaw slavery in its Bill of Rights or any of its amendments.

ANSWER: United States Constitution

(7) Answer the following about prayer in Abrahamic religions, for ten points each.

Members of this faith are encouraged to engage in five daily personal prayers, which should be performed facing the qibla, the direction of the Kaaba, whenever possible.

ANSWER: **Islam** (accept equivalents like **Muslims**)

In Catholicism, prayers are often performed with the help of this beaded object, which is separated into decades representing holy Mysteries.

ANSWER: **Rosary** (accept **Rosaries**; accept Holy **Rosary**; accept Dominican **Rosary**; prompt on “prayer beads”)

This Abrahamic religion’s three Obligatory Prayers were revealed by Bahá’u’lláh, who founded this religion in the 1800s.

ANSWER: **Baha’i** faith (accept **Baha’iism**)

(8) Prior to this controversy-plagued event, fifty-five percent of polled citizens believed it was unsafe to host it due to COVID, which spiked to over one hundred thousand daily cases for the first time during and after this event. For ten points each,

Name this international sporting competition that, after a one-year delay, ran in wards like Shibuya and Shinjuku.

ANSWER: **2020 Olympic** games (accept **2020 Summer Olympics**; accept **Tokyo Olympics**; accept Games of the **32nd Olympiad**; accept “2021” instead of “2020” in any previous answer; prompt on answers like “Olympics” or “Summer Olympics” that do not mention “2020,” “2021,” “Tokyo,” or “32”)

Despite confirmations of widespread, state-sponsored athletic doping, the athletes from a particular country were controversially allowed to compete at the Tokyo Olympics, although they were forced to use a modified flag and this acronym as their team name.

ANSWER: **ROC** (Note: Although ROC stands for “Russian Olympic Committee,” the team was not allowed to use the full name to compete because it included the word “Russia.”)

On top of all of their other controversies, the Tokyo Olympics experienced one of the most intense heat waves ever to hit the Summer Olympics. As a result, some events were moved to this city on Hokkaido, which also hosted the 1972 Winter Olympics.

ANSWER: **Sapporo**

(9) During a seventy-year period called the Maunder Minimum, very few dark fluctuations were observed on this astronomical object. For ten points each,

Name this astronomical object that can experience namesake “spots,” dark regions on its surface caused by magnetic activity.

ANSWER: sun (accept sunspots)

Sunspots are still very bright; they only look dark compared to this layer, the “visible” surface of the sun, where energy is released as light.

ANSWER: photosphere

This other phenomenon can make parts of the sun appear dark. In these events, a syzygy, or the lining-up of three astronomical objects, causes the moon to block out the Earth’s view of the sun.

ANSWER: solar eclipse

(10) The last ruler with this title was overthrown by the Bolsheviks. For ten points each,

Give this title for rulers of Russia prior to the October Revolution. The last man to hold this title was Nicholas II [second], who was executed along with his family.

ANSWER: Tsar (accept Czar)

This youngest daughter of Nicholas II was rumored to have survived the royal family’s execution. Many women impersonated this girl in attempts to claim her fortune.

ANSWER: Anastasia Romanov (accept Anastasiya Nikolayevna Romanov; prompt on “Romanov”)

This mystic and advisor to Nicholas II avoided being executed along with the imperial family because he had already been poisoned, stabbed, shot, and drowned.

ANSWER: Grigori Rasputin (accept Grigori Yefimovich Rasputin; accept Grigori Novykh)

(11) When this literary character uses a brass knob from a fire grate to propose, he is rejected because his love interest is angry that he has already been engaged to Amy Lawrence. For ten points each,

Name this fictional boy from Missouri who, in an adventure novel named for him, finds Injun Joe’s treasure hidden in McDougal’s Cave.

ANSWER: Tom Sawyer (accept either underlined name; accept Thomas Sawyer; accept *The Adventures of Tom Sawyer*)

Tom Sawyer’s proposal is rejected by this girl, the daughter of a local judge. Later in the novel, she and Tom get lost together in McDougal’s Cave.

ANSWER: Becky Thatcher (accept Becky Thatcher; prompt on “Thatcher” alone)

*The Adventures of Tom Sawyer* is by this American author of *The Adventures of Huckleberry Finn*.

ANSWER: Mark Twain (accept Samuel Langhorne Clemens)



(12) Answer the following about the mythical daughter of Priam and Hecuba, for ten points each.

This princess in Greek mythology had the gift of being able to see the future, but was cursed so that people would never believe her prophecies.

ANSWER: Cassandra

Cassandra received the ability to see the future from this Greek god of light and prophecy, who was the twin brother of Artemis. He cursed her after she turned down his romantic advances.

ANSWER: Apollo (accept Apollon; accept Phoebus Apollo)

Cassandra was a princess from this city. She foresaw its fall to Agamemnon's Greek army.

ANSWER: Troy (accept Troia; accept Ilium or Ilion or Ilios)

(13) On the Allred-Rochow scale, elements in this group have electro-negativities between 1.8 and 2.2. For ten points each,

Name this group of roughly six elements that includes boron, arsenic, and germanium. This group's name reflects that its properties are between those of elements like gold and oxygen.

ANSWER: metalloids (accept semimetals)

The semiconductor industry relies heavily on germanium and this element with symbol Si to build components like transistors and microchips.

ANSWER: silicon (do not accept or prompt on "silicone" or "silica")

When the metalloid antimony is blended with tin, the result is this alloy, traditionally used to make dishes, pitchers, and beer tankards.

ANSWER: pewter

(14) In a novel by this author, Abel Magwitch is deported to Australia for fighting in prison, although the man he fought is given a lighter punishment because of his well-bred manner. For ten points each,

Name this English author who highlighted Victorian social inequality in works like *David Copperfield* and *A Christmas Carol*.

ANSWER: Charles Dickens (accept Charles John Huffam Dickens)

Abel Magwitch appears in this Charles Dickens novel, in which he makes a fortune in Australia and uses it to help the young orphan Pip become a gentleman and befriend Magwitch's estranged daughter, Estella.

ANSWER: Great Expectations

In *Great Expectations*, Estella is raised not by her father, but by Miss Havisham, who tries to mold Estella into a cruel heartbreaker. Miss Havisham wears a tattered dress and keeps the clocks in her house stopped at twenty minutes to nine to remind herself of this event, during which she was left at the altar.

ANSWER: her wedding (accept similar terms like marriage; accept descriptions of her being abandoned or left by her fiancé)

(15) Introductory algebra classes often focus on the factoring of these expressions, such as “x squared minus four x plus four.” For ten points each,

Give this term for an expression that includes coefficients and variables that are combined by addition and multiplication.

ANSWER: **polynomials**

Polynomials can be classified based on their number of terms; for example, “two x” is a monomial, and “two x plus two” is one of these.

ANSWER: **binomials**

Polynomials can also be classified by this quantity, the largest exponent on any of its terms. For example, for “x to the one-hundredth power, minus three x cubed, plus one,” this quantity is one hundred.

ANSWER: **degree**

(16) Give the following about Interstate 10 in the American southeast, for ten points each.

I-10’s eastern terminus is this massive metropolis, found on the St. John’s River in Duval County in northeast Florida.

ANSWER: **Jacksonville**

After leaving Florida, I-10 intersects I-65 in this Alabama city on a namesake bay. This city’s Mardi Gras celebrations are the oldest in the US, predating New Orleans.

ANSWER: **Mobile** (accept **Mobile Bay**)

Continuing west from Alabama, I-10 passes through Biloxi in this state before reaching New Orleans in Louisiana.

ANSWER: **Mississippi**

(17) In a speech to Protestant ministers in Houston, this man remarked “I am not the Catholic candidate for president. I am the Democratic Party’s candidate for president, who happens also to be a Catholic.” For ten points each,

Name this politician who became the first Catholic American president when he defeated Richard Nixon in 1960.

ANSWER: **John Fitzgerald Kennedy** (accept **JFK**; prompt on “Kennedy”)

In 1960, the Kennedy campaign was particularly worried about anti-Catholic sentiment in the South, so they selected this Texan protestant as Kennedy’s running mate.

ANSWER: **Lyndon Baines Johnson** (accept **LBJ**; prompt on “Johnson”)

Nixon supporters worried that this mayor of Chicago had committed voter fraud to push Illinois in Kennedy’s favor, but Nixon refused to challenge the election results.

ANSWER: Richard Joseph **Daley**

(18) The increasing frequency of dark-colored moths in nineteenth-century England that coincided with the spread of pollution from factories can be considered a directional example of this process. For ten points each,

Name this mechanism of evolution in which individuals with favorable traits for an environment survive longer and pass those traits to their offspring.

ANSWER: natural selection

Unlike “directional” selection, this type of natural selection favors *two* extreme phenotypes. This type of selection explains why finches on Santa Cruz island have either small or large beaks, with very few having medium-sized beaks.

ANSWER: disruptive selection (accept diversifying selection)

In some African countries like Mozambique, this trait has increased in elephant populations from five to thirty-five percent in two generations. Pressure from poachers has created a directional selection for this trait, especially in female elephants.

ANSWER: tuskless (accept any description of elephants having no tusks)

(19) This country is home to the playwright of *The Glass Menagerie* and *The Rose Tattoo*. For ten points each,

Name this country, which is also the home country of playwright Eugene O’Neill, who set the play *Long Day’s Journey Into Night* in Connecticut.

ANSWER: US (accept USA; accept either underlined portion of United States of America)

*The Glass Menagerie* and *The Rose Tattoo* are by this American playwright, who set many of his works in the American South.

ANSWER: Tennessee Williams (accept Thomas Lanier Williams III [third])

In this Tennessee Williams play set in New Orleans, Blanche DuBois loses her family’s home, Belle Reve [bell rehv], and moves into an apartment with her sister and brother-in-law, Stella and Stanley Kowalski.

ANSWER: A Streetcar Named Desire

(20) This artist frequently used his wife, Jo, as a model for paintings of women in city settings. For ten points each,

Name this American painter of *Automat* and *Chop Suey*.

ANSWER: Edward Hopper

In this often-parodied painting by Edward Hopper, two men and a woman in a red dress sit at a brightly-lit lunch counter on a dramatically dark street.

ANSWER: Nighthawks

Hopper’s paintings frequently emphasize the crowds and isolation of this American city. Hopper died in Manhattan, a borough of this east coast city.

ANSWER: New York City (accept NYC)