## Round 1

## First Half

(1) This man was ridiculed by the Privy Council for his involvement in the Hutchinson Letters Affair, causing him to support American independence. This man is credited with creating the Join, or Die cartoon and earned his fortune printing the (*) Pennsylvania Gazette. Under the pseudonym Richard Saunders, this man authored Poor Richard's Almanack. For ten points, name this Philadelphian whose face appears on the U.S. $\$ 100$ bill.

ANSWER: Benjamin "Ben" Franklin
(bonus) In this book, a sheep warns the pig Wilbur that he will soon be killed and turned into ham and bacon. For ten points each,

* The farm resident, Fern Arable, notices that the animals in her family's barn talk during what children's novel?

ANSWER: Charlotte's Web

* This creator of Stuart Little wrote Charlotte's Web.

ANSWER: E.B. White (accept Elwyn Brooks White)

* After spinning words such as "radiant" and "terrific," this is the last word that Charlotte spins in her web before laying her eggs and dying.

ANSWER: Humble
(2) This Greek figure killed Campe [[KAHM-pay]], freeing the Hundred-Handed Ones and the Cyclopes [[sai-KLOH-pees]] from Tartarus [[TAHR-tuh-russ]], presaging the Titanomachy [[tai-tan-AH-mah-kee]]. When this figure was a baby, (*) Rhea [[RAYuh]] hid him atop Mount Ida and presented a rock to his father, Cronus. This deity's wife was distracted by Echo, who covered for this god's trysts with women like Europa and Leda. For ten points, name this thunderbolt-wielding sky god, the chief deity of the Greek pantheon.

ANSWER: Zeus (accept Deus; do not accept or prompt on "Jupiter")
(bonus) This Mesoamerican deity was often associated with the planet Venus. For ten points each,

* Name this deity, whose name is translated in Nahuatl [[nah-WAH-tul]] as "precious serpent."

ANSWER: Quetzalcoatlzin [[ket-sahl-KWAH-tul]]

* Quetzalcoatl was a major deity in the pantheon of these people of Mexico, who resided in cities like Tenochtitlan [[teh-noach-teet-LAHN]].

ANSWER: Aztecs (prompt on "Mexica"; prompt on "Nahua")

* Quetzalcoatl is sometimes conflated with a ruler from this semi-mythologized people whom the Aztecs viewed as their cultural predecessors.

ANSWER: Toltecs (accept answers such as Toltec culture, civilization, or dynasty)
(3) A joke war song addressed to people from this country instructs listeners to bring a box of matches on a trip to Washington, D.C. That war included the Battle of Queenston Heights in this country, after which Isaac Brock was seen as a hero. A later dispute involving this country's (*) borders featured the San Juan Islands near one of its future provincial capitals at Victoria. For ten points, name this country, which shares the Akwesasne [[ah-kweh-SAH-neh]] Mohawk reservation with New York.

ANSWER: Canada
(bonus) This country was ruled by Sheikh Jaber al-Sabah during the First Gulf War. For ten points each,

* Name this oil-rich country which was invaded by its northern neighbor, Iraq, in 1990.

ANSWER: State of Kuwait (accept Dawlat al-Kuwayt)

* Given an ultimatum to withdraw from Kuwait, this Iraqi leader refused, promising the "Mother of All Battles" should his forces be attacked.

ANSWER: Saddam Hussein Abd al-Majid al-Tikriti

* The Iraqis were defeated in a matter of days by a coalition force led by this American general, who led U.S. forces in Operations Desert Shield and Desert Storm.

ANSWER: "Stormin'" Norman Schwarzkopf, Jr.
(4) This instrument opens the "Promenade" of Mussorgsky's Pictures at an Exhibition and is featured on "A Night in Tunisia." This was the primary instrument of an artist who included "So What" on the album (*) Kind of Blue, and was also the principal instrument of Dizzy Gillespie, who played a "bent" version of this instrument. Miles Davis and Louis Armstrong played, for ten points, what high-pitched brass instrument with three valves?

ANSWER: Trumpets
(bonus) In one song in the work in which he appears, several characters sing that it "must be nice" to have this character on one's side. For ten points each,

* Name this character who calls for an "all-out stand" during the Revolutionary War in one musical.

ANSWER: George Washington

* The aforementioned songs appear in this historically themed musical by Lin-Manuel Miranda, which focuses on the first Secretary of the Treasury.

ANSWER: Hamilton: An American Musical

* In one scene, Aaron Burr advises Alexander Hamilton to not "let them know what you're against or what you're for" after he tells Hamilton to talk less and do this more.

ANSWER: Smile
(5) Robert Sternberg argued that this quantity has dimensions independent of its general g-factor. The Flynn effect describes the sustained increase in fluid and crystallized variants of this quantity globally in the twentieth century. (*) People with exceptionally high amounts of this quantity join societies like the Triple Nine and MENSA. For ten points, name this numerical value which supposedly measures how smart a person is, using tests like the Stanford-Binet.

ANSWER: Intelligence quotient (accept IQ; prompt on "Intelligence")
(bonus) High-power types of these devices can be used to cut steel. For ten points each,

* Name these devices that emit a single beam of coherent light through stimulated emission.

ANSWER: Lasers (accept Light Amplification by Stimulated Emission of Radiation)

* This two-word term describes the condition in a laser in which more atoms exist in an excited state than those in a lower energy state. This state is usually necessary for lasers to function.


## ANSWER: Population Inversion

* This scientist names A and B coefficients which describe emission in lasers. The "fifth state of matter," a condensate named for Bose and this German scientist, was also first created using lasers.

ANSWER: Albert Einstein (accept Einstein Coefficient(s); accept Bose-Einstein condensate)
(6) The Ruvyironza [[roo-vee-ROHN-zoh]] and Nyabarongo [[nai-ah-bah-ROHNgoh]] rivers are considered to be the most remote sources of this larger river. The largest drainage basin of this river is in one of its tributaries whose name translates to "Sea of Gazelles." This river's (*) Aswan High Dam prevents it from flooding. Containing the namesake White and Blue rivers, for ten points, what is this river which flows through Egypt, the longest river in the world?

ANSWER: Nile River (accept an-Nil [[ahn-NEEL]]; accept Hapy; accept Phiaro; accept Aman Dawu; accept Kiira)
(bonus) Name some rivers in the state of Texas. For ten points each,

* This river runs through El Paso to Brownsville, following the entire border between Texas and Mexico.

ANSWER: Rio Grande (accept Río Bravo del Norte)

* This river originates in the Llano Estacado [[YAH-noh es-tah-KAH-doh]] before flowing through Waco and College Station and emptying into the Gulf of Mexico west of Houston.

ANSWER: Brazos River (accept Rio de los Brazos de Dio)

* One river with this name is the longest entirely within Texas. Another river with this name is impounded by the Glen Canyon Dam.

ANSWER: Colorado River (accept Rio Colorado)
(7) According to the ABC model, these structures cannot develop unless three distinct physiological developments take place in meristem tissue. Zoophilous [[zoo-oh-FILL-us]] monocots have phaneranthous [[fah-ner-AN-thus]] versions of these structures, a form of optical signaling to (*) attract animals. Angiosperms are named for their ability to produce these structures. For ten points, name these reproductive plant structures distinguishable by their colorful petals.

ANSWER: Flowers (accept Blooms; accept Blossoms)
(bonus) Flippases, floppases, and scramblases switch around molecules within this structure. For ten points each,

* Name this semi-permeable organelle which surrounds the cytoplasm.

ANSWER: Cell Membrane (accept Plasma Membrane; prompt on "Membrane")

* The cell membrane is made of a bilayer of these amphipathic [[am-fih-PATH-ick]] molecules, which contain two fatty acid "tails" with a phosphate and glycerol [[GLIH-serall]] "head" group.

ANSWER: Phospholipids [[foss-foh-LIH-pids]] (accept Phospholipid Bilayer; prompt on "Lipid(s)")

* The long fatty acid "tails" of phospholipids have this property, which is why they orient towards the inside of the membrane to avoid the water-filled external environment.

ANSWER: Hydrophobicity (accept Lipophilicity; prompt on "Organic")
(8) Yahrtzeit [[YAHRT-site]] examples of these objects are used to memorialize the dead in Judaism. During the Easter vigil, a white Paschal [[pah-SKAHL]] example of these objects is displayed. Three green, three (*) red, and one black example of these objects are placed in a kinara during Kwanzaa celebrations. Nine of these objects are placed on a menorah during Hanukkah. For ten points, name these wax objects, which are commonly lit for religious ceremonies.

ANSWER: Candles (accept Shamash or Shammus; accept Mishumaa Saba; accept Yahrzeit (or Yahrtzeit) candles; accept Memorial candles; accept Easter candles; accept Christ candles)
(bonus) During one encounter, this man heard a voice ask, "Why do you persecute me?" For ten points each,

* Name this saint who was struck blind while traveling on the road to Damascus, inspiring his conversion to Christianity.

ANSWER: Saint Paul the Apostle (accept Saul of Tarsus)

* Paul wrote many of these works in the New Testament, including ones addressed to the Romans and Corinthians.

ANSWER: Epistles (accept Letters)

* Paul was a witness to the stoning of this first Christian martyr, a saint who gave a speech denouncing the Sanhedrin [[san-HEE-drin]].

ANSWER: Stephen (accept Stephanos HaQadosh)

## Halftime

The categories are:

1. Dr. Seuss
2. Obsolete National Flags
3. Chemical Reactions

Dr. Seuss
Name the...
(1) Playful but destructive animal who is friends with "Thing Two" and "Thing One."

ANSWER: The Cat in the $\underline{\text { Hat }}$ (prompt on partial answers)
(2) Pachyderm who saves Whoville from bullies.

ANSWER: Horton the Elephant (accept $\underline{\text { Horton Hears a Who!) }}$
(3) Scrooge-like character who has a heart "two sizes too small."

ANSWER: The Grinch (accept How the Grinch Stole Christmas!
(4) Environmental activist fable whose protagonist "speaks for the trees."

ANSWER: The Lorax
(5) Street that titles Seuss's first book which has been pulled from publication due to an offensive depiction of a Chinese man.

ANSWER: Mulberry Street (accept And to Think That I Saw It on Mulberry Street)
(6) King of the pond who commands Mack and the other reptiles to stack themselves beneath him.

ANSWER: Yertle the Turtle (accept Yertle the Turtle and Other Stories)

ANSWER:

ANSWER:

## Obsolete National Flags

Name the country or region that formerly used a flag featuring...
(1) A yellow hammer and sickle against a red field until its collapse in 1991.

ANSWER: Soviet Union (accept $\underline{\text { Union }}$ of $\underline{\text { Soviet }}$ Socialist $\underline{\text { Republics; do not accept or }}$ prompt on "Russia")
(2) 48 stars until 1959.

ANSWER: United States of America (accept USA; accept America)
(3) Nothing but green.

ANSWER: State of Libya
(4) Snow lions below a rising sun, abandoned after its use by the Freedom Movement against the People's Republic of China.

ANSWER: Tibet (accept Xizzàng)
(5) Dark red, white, and black, replaced by a white flag with five red crosses in 2004.

ANSWER: Georgia (accept Sakartvelo)
(6) A red horizontal stripe on a white field, now often used by Eastern European protestors.

ANSWER: Republic of Belarus (accept Byelorussian SSR; accept Belarusian People's Republic)

ANSWER:

ANSWER:

## Chemical Reactions

Give the term from chemistry that...
(1) Refers to the substances made during a chemical reaction, as opposed to the reactants at the beginning.

ANSWER: Products
(2) Describes a reaction that releases heat into the surroundings.

ANSWER: Exothermic (prompt on "exergonic")
(3) Names a type of reaction in which a single compound is broken down into two or more substances.

## ANSWER: Decomposition

(4) Describes a reaction in which the chemicals are dissolved in water.

ANSWER: Aqueous (prompt on "solution")
(5) Refers to the use of balanced equations and molar [[MOH-lar]] masses to calculate amounts of chemicals involved in reactions.

ANSWER: Stoichiometry [[stoh-ee-kee-AH-meh-tree]]
(6) Names a type of reaction in which an acid and a base react to form a salt and water.

ANSWER: Neutralization

ANSWER:
(8)

ANSWER:

## Second Half

(1) A poem in this genre contains the lines, "Since the crescent moon, I have been waiting for tonight." That work was written by a man who included works in this genre in The Narrow Road to the Deep North. A (*) "cutting word" is often featured in this genre, which may have evolved from the renga tradition. Seventeen on [[OHN]] in a 5-7-5 arrangement are traditional in poems of this genre. For ten points, name these short Japanese poems.

ANSWER: Haikus (prompt on "poem(s)" or "poetry")
(bonus) In the first book of this epic, a plague ravages the Achaean [[uh-KEE-an]] army until Agamemnon returns the captive Chryseis [[krih-SAY-iss]] to her father. For ten points each,

* Name this epic poem that begins with the Greek word "menin," which is often translated as "rage."

ANSWER: The Iliad (accept The Song of Ilion; accept The Song of Ilium)

* The epic begins by describing the "rage" of this Greek hero and leader of the Myrmidons.

ANSWER: Achilles (or Achilleus)

* This enraged cousin of Achilles recovers his body after he is killed by Paris but takes his own life after losing out on Achilles's armor.

ANSWER: $\underline{\text { Ajax }}$ the Great(er) (accept Aias in place of Ajax; accept Greater Ajax; accept Telamonian Ajax; do not accept or prompt on "Ajax the Lesser")
(2) Shor's algorithm for quantum computers performs this process. The reverse of the FOIL method is equivalent to performing this process on a polynomial. The fundamental theorem of (*) arithmetic states that every natural number greater than one can undergo this process to give a series of prime numbers. For ten points, name this task which decomposes an integer into the product of many smaller integers.

ANSWER: Factorization (accept Factoring in place of "Factorization"; accept Finding Factors; accept Prime Factorization; accept Polynomial Factorization; accept Integer Factorization)
(bonus) Answer the following about types of polyhedra. For ten points each,

* This is the number of Platonic solids, which are convex polyhedra whose faces, edges, and vertices are all identical.

ANSWER: Five

* Convex polyhedra whose faces are regular polyhedra and have identical vertices are named after this ancient Greek scientist and mathematician from Syracuse.

ANSWER: Archimedes [[ar-kih-MEE-dees]] of Syracuse

* When a polyhedron's faces are allowed to pass through each other, four more regular polyhedra can be made, which are named for Poinsot [[pwahn- SOH ]] and this astronomer known for his laws of planetary motion.

ANSWER: Johannes Kepler (accept Kepler-Poinsot polyhedra)
(3) A stone that depicts an attack by these people became known as the Domesday [[DOOMS-day]] Stone. Six thousand of these people called the Varangians [[vuh-RANjuns]] made up the bodyguards of the Byzantine emperor. These people carried out the bloody (*) raid of an abbey on Lindisfarne [[LIN-diss-farn]]. Notable individuals from these people include Harald Hardrada [[har-DRAH-dah]] and Leif Erikson, and their history is recorded on runestones. For ten points, name these Scandinavian seafarers infamous for raiding coastlines.

ANSWER: Vikings (prompt on "Norse(men)" or "Scandinavians")
(bonus) Vercingetorix [[vehr-sin-JEH-tuh-riks]] was a leader of the Arverni tribe of these people. For ten points each,

* Name these people against whom Julius Caesar led a campaign predominantly in modern-day France. They included many tribes such as the Arverni and Helvetii.

ANSWER: Gauls (accept $\underline{\text { Gallic people; accept } \underline{\text { Galatai; }} \text { prompt on "Celtic") }}$

* The Gallic leader Brennus led a 390 B.C. attack on this city. It names an empire whose western half is thought to have collapsed by 476 A.D.

ANSWER: Rome (accept Roma; accept Roman Empire)

* A later sack of Rome in 410 A.D. was carried out by Alaric, the leader of these Germanic people.

ANSWER: Visigoths (accept Visigothi; accept Wisigothi; prompt on "Goth(s)")
(4) Objects of this type are often exposed in orogenic belts produced at convergent tectonic boundaries. Some varieties of this material have a tendency to split along a parallel plane pattern, a trait called schistosity [[shih-STAH-sih-tee]]. This material is divided into three (*) textural categories, including schist [[SHIST]], granofel, and gneiss [[NICE]]. For ten points, name this material created when sedimentary or igneous rock experiences extreme temperature and pressure.

ANSWER: Metamorphic rock(s) (prompt on "rock(s)" or "stone(s)" before mentioned)
(bonus) Lagerstätten [[LAH-guh-shteh-ten]], like the Mazon [[muh-ZAHN]] Creek beds in Illinois, have particularly well-preserved examples of these remains. For ten points each,

* Give this term for mineralized remains of once-living organisms which can include footprints, petrified wood, and dinosaur bones.

ANSWER: Fossils (accept word forms such as Fossilized)

* Insects and spiders can be preserved almost perfectly in this fossil material, a hardened form of tree resin.

ANSWER: Amber (accept Ambrite; prompt on "Resinite")

* One of the best fossil records of the Cambrian Explosion is this site in British Columbia which preserved bizarre animals like Opabinia [[oh-pah-BIH-nee-ah]] and Hallucigenia [[hah-loo-sih-JEH-nee-ah]].

ANSWER: Burgess Shale (prompt on "Yoho National Park" and "Kootenay National Park")
(5) The term for these works was coined in 1931 by Marcel Duchamp [[dooSHAHMP]] to describe their mechanical and ever-changing appearance. A work of this type found in the stairwell of New York's Museum of Modern Art partly resembles an underwater hunting tool and is titled (*) Lobster Trap and Fish Tail. Alexander Calder created many of, for ten points, what kinetic art sculptures powered by air currents and typically suspended from a ceiling?

ANSWER: Mobiles (prompt on "kinetic sculpture" or "kinetic art")
(bonus) This man's portrait of Ginevra de' Benci [[BEN-chee]] is the only one of his paintings permanently housed in the Americas. For ten points each,

* Name this artist who created a portrait of a Florentine woman who married into the Gherardini family.

ANSWER: Leonardo da Vinci (accept either underlined portion)

* Da Vinci's Salvator Mundi depicts this man holding a glass sphere in his left hand. This man also appears at the center of Da Vinci's The Last Supper.

ANSWER: Jesus Christ (accept either underlined portion; accept Jesus of Nazareth)

* A different Da Vinci portrait housed in Krakow depicts Cecilia Gallerani [[gah-leh-RAH-nee]] holding one of these animals.

ANSWER: Ermine (accept Lady with an Ermine; accept Dama con l'ermellino; accept Stoat; prompt on "Weasel")
(6) A treatise from this nation claimed religion moved in a linear manner from fetishism, to polytheism, and eventually to monotheism. A thinker from this nation, who coined the term "collective consciousness," described the different forms of suicide in an 1897 pamphlet. A secular humanist from this nation, (*) Auguste Comte [[KOHMT]], used his philosophy of positivism to push for a science-driven society. For ten points, name this European country, home to sociologist Émile Durkheim.

ANSWER: France (accept French Republic; accept Republique Francaise; accept First French Empire; accept Second French Empire; accept French Second Republic; accept French Third Republic)
(bonus) Answer the following about Greek terms for different types of government all ending in "cracy." For ten points each,

* From the Greek for "people rule," this form of government involves popular representation. It is similar to a republic.


## ANSWER: Democracy

* This form of government, whose name means "self rule," involves one individual holding control.

ANSWER: Autocracy

* This form of government from the Greek for "wealthy rule" places individuals with high incomes in power.

ANSWER: Plutocracy
(7) This man was the leader of Harlem Temple Number 7, and grew in prominence after one of its members, Hinton Johnson, was beaten by the police. This man broke away from (*) Elijah Mohammed, and became known as el-Hajj Malik elShabazz after a pilgrimage to Mecca. While in prison, this man changed his last name to a letter in the alphabet, reflecting his unknown African heritage. For ten points, name this Black Muslim minister.

ANSWER: Malcolm $\underline{\mathbf{X}}$ (accept Malcolm Little; accept el-Hajj Malik el-Shabazz before mentioned; prompt on "Malcolm")
(bonus) This park was given by Pennsylvania to the National Park Service for the U.S. Bicentennial in 1976. For ten points each,

* Name this National Historical Park, the site of the Continental Army encampment in the winter of 1777 to 1778.

ANSWER: Valley Forge National Historical Park

* What other Pennsylvania historical site was the principal meeting place for the Second Continental Congress?

ANSWER: Independence Hall

* What other National Historical Park, located in and around Concord, Lexington, and Lincoln, Massachusetts, is named for the quick-acting militia members of the Revolutionary War?

ANSWER: Minute Man National Historical Park
(8) In Poetics, Aristotle describes this genre as a means to reach catharsis, or "purification" of emotions. These works were originally acts of worship to Dionysus, and the first person known to have created them was named (*) Thespis. Aeschylus [[ESS-kih-luss]] and Sophocles are commonly associated with this genre. For ten points, name this dramatic genre which, in its modern form, focuses on human suffering, the opposite of comedy.

ANSWER: Tragedy (accept Tragōidia; accept specific answers like Greek Tragedy or Attic Tragedy; prompt on "Play(s), "Drama(s)," and similar answers)
(bonus) This author frequently wrote about orphans in Victorian England, including characters like Martin Chuzzlewit and Esther Summerson. For ten points each,

* Name this novelist who wrote Bleak House, as well as a novel in which Pip receives a fortune from a mysterious benefactor.

ANSWER: Charles Dickens

* Pip goes from being a poor orphan to an independent gentleman in this novel by Dickens.


## ANSWER: Great Expectations

* Pip receives his fortune from Abel Magwitch, a convict who makes his money while exiled to this commonwealth, a one-time English penal colony.

ANSWER: Commonwealth of Australia

## Extra Questions

(1) During the first part of this program, the NIRA established the National Recovery Administration, which aimed to set codes of fair business practices. This program, which was opposed by the judicial "Four Horsemen," put forth the "Three R's," which included (*) relief, recovery, and reform. For ten points, name this series of programs and financial reforms enacted by President Franklin D. Roosevelt to aid recovery from the Great Depression.

## ANSWER: New Deal

(bonus) Over four million people a year walk through this city's zoo, the most visited zoo in the U.S. For ten points each,

* Name this major city which was originally inhabited by the La Jolla [[HOY-uh]]
people.
ANSWER: San Diego
* San Diego is about a two hour drive from this city, the largest in California.

ANSWER: Los Angeles

* A popular attraction in San Diego is one of these buildings along the Point Loma peninsula, which replaced an earlier one situated in the Cabrillo [[kah-BREE-yo]] National Monument.

ANSWER: Lighthouses

