Round 8

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Tossups

(1) **In a novel from this country, Oscar Hopkins makes a bet that he can move a glass church to Bellingen. This country is the home of *Oscar and Lucinda* and the Booker-nominated novel *The Chant of Jimmie Blacksmith*, which narrates the true story of an indigenous (*)** bushranger. The Holocaust-era nonfiction novel *Schindler's Ark* is by an author from this Oceanic country. For ten points, name this home country of authors Peter Carey and Thomas Keneally, who was born in Sydney.

ANSWER: **Australia** (accept Commonwealth of **Australia**)

(2) **The Phillips curve shows that a drop in this quantity will cause inflation to rise. Milton Friedman correctly counter-predicted that both inflation and this quantity would (*)** rise during the mid-1970s in a process called stagflation. This quantity is called "frictional" if it is caused by someone voluntarily switching jobs. For ten points, name this economic measurement of how many people in the labor force are out of work.

ANSWER: **unemployment** (accept **unemployment** rate; prompt on descriptive answers like "how many people in the labor force are out of work" until "out" is read)

(3) **In 1848, this man wrote that "Right is of no sex" in his report after the Seneca Falls Convention. This man, who joined Victoria Woodhull on the Equal Rights (*)** Party ticket, described sounds like fireworks as "empty and heartless" in a speech that asks "What, to a slave, is the Fourth of July?" *The North Star* newspaper was published by, for ten points, what author of *My Bondage and My Freedom*, an abolitionist activist who was born into slavery?

ANSWER: Frederick **Douglass** (accept Frederick Augustus Washington **Bailey**)

(4) **Drugs are encapsulated inside of delivery vehicles to increase their bioavailability, and therefore, this quantity, which exactly equals "the natural logarithm of 2, divided by a first-order rate constant." This quantity is estimated to exceed three (*)** years for "forever chemicals" known as PFAS. Radiometric dating relies on the fact that this value is exactly 5730 years for carbon-13. For ten points, name this amount of time required for fifty percent of a sample to decay.

ANSWER: **half-life** (prompt on "time" until it is read)

(5) **This function's parent graph is continuous, but not differentiable, at x equals zero because its slope is negative one for negative x values, but positive one for positive x values. Among other meanings, the terms (*)** "modulus" and "magnitude" are alternative names for this operation. A pair of vertical bars surrounding a number indicates, for ten points, what operation that returns the size of a number, without a negative sign if one exists?

ANSWER: **absolute value** (accept **modulus** before it is read; accept **magnitude** before it is read)

(6) **The earliest known examples of these artifacts were found in Lydia and made from electrum, a natural alloy; the Lydian king Croesus [kree-sus] later standardized their purity. Tiberius hoarded hundreds of millions of an example of this artifact called a (*)** denarius. Athens designed some of these artifacts with an owl on one side and Athena on the obverse side; those examples were typically worth four drachmas. For ten points, name these ancient artifacts that were typically minted from gold or silver.

ANSWER: ancient **coin**s (prompt on "money," "currency," and other similarly generic terms)

(7) **When worn by a Nazirite, this substance must be left intact. The biblical figure Esau was named for this substance. This substance may be tended with a Kangha and covered with a dastar by (*)** Sikhs, who are forbidden by Kesh, one of the Five K's, from cutting this. By cutting this substance, Delilah deprived Samson of his strength, which returned as this substance grew back. For ten points, name this body part that grows out of the scalp.

ANSWER: human **hair**

(8) **In a short story by this author, Travis forces Eckles to dig bullets out of the mouth of a slain animal. Cleaning "mice" dispose of the body of a starved dog in another short story by this author of (*)** "A Sound of Thunder." An automatic house keeps working, burned with the outlines of a family killed in a nuclear blast, in this author's "There Will Come Soft Rains." For ten points, name this science fiction author of *The Martian Chronicles* and *Fahrenheit 451*.

ANSWER: Ray **Bradbury** (accept Ray Douglas **Bradbury**)

(9) **The Sinus Borealis lay north of this region. Alfred Wegener first proposed this region after noticing that *Glossopteris* fern fossils were prevalent across boundaries where a jigsaw puzzle could seemingly fit together. Due to (*)** plate tectonics, this region split into Gondwana and Laurasia when the Tethys Ocean opened up 200 million years ago. The Greek words for "all" and "Earth" are used in the name of, for ten points, what prehistoric supercontinent?

ANSWER: **Pangaea**

(10) **This composer considered asking Pope Pius IX to let women sing his *Requiem*, which premiered at La Scala in 1874. The "Chorus of the Hebrew Slaves" from this man's opera *Nabucco* was sung by mourners at his funeral in Milan. Catchy songs by this man include the (*)** Anvil Chorus and "La Donna e Mobile" [MOH-bee-lay]. A court jester and an Ethiopian princess are title characters of works by, for ten points, what Italian composer of the operas *Rigoletto* and *Aida*?

ANSWER: Giuseppe **Verdi** (accept Giuseppe Fortunino Francesco **Verdi**)

(11) **Two of these devices with unequal radii are used in the "differential" type, invented by Thomas Weston. These devices are usually assumed to have a rotational inertia of "one-half M R squared," or they can be frictionless, as in an ideal Atwood machine. A (*)** block-and-tackle derives its mechanical advantage by combining these devices with ropes. For ten points, name these simple machines that reverse the direction of input force by suspending a taut rope over a wheel.

ANSWER: **pulley**s (accept **block-and-tackle** before it is read)

(12) **This character is ordered to fetch kid-gloves and a fan by a character who thinks she is Mary Ann; instead, she frightens Bill, a lizard, when she drinks from a bottle marked (*)** "DRINK ME." This character follows the White Rabbit to a land inhabited by the Cheshire Cat, Tweedle-Dee, and Tweedle-Dum. For ten points, name this character who, in novels by Lewis Carroll goes *Through the Looking-Glass* and into Wonderland.

ANSWER: **Alice** (accept **Alice's Adventures in Wonderland**; accept **Alice in Wonderland**; accept Alice **Liddell**)

(13) **In 1992, a version of this product was cancelled because Tim Burton made the film *Batman Returns* too graphic. In 1997, hospitalizations and arrests resulted from the high demand for (*)** Teenie Beanies included with this product. A 2010 law in San Francisco targeted this specific product by making its free prizes illegal. In 2022, Cactus Plant Flea Market partnered to create an "Adult" version of, for ten points, what meals that might include Chicken McNuggets and a toy, sold by McDonald's?

ANSWER: McDonald's **Happy Meal**s (accept **Happy Meal** toys; prompt on "kids' meal")

(14) **This mythical figure was the mother of Pyrrha, who survived a great flood with her husband, Deucalion. Before being given to Epimetheus, this figure was created by (*)** Hephaestus, learned seduction from Aphrodite, and was clothed by Athena before opening a gift and releasing everything inside it but hope. For ten points, name this mythical Greek woman who opened a jar that contained all of the evils of the world.

ANSWER: **Pandora**

(15) **The earliest example of this vehicle used a canard design and was permanently disabled after four uses. The town of Kill Devil Hills now commemorates one of these vehicles that was operated for the first time in (*)** 1903 at Kitty Hawk. A pair of bicycle repairmen developed, for ten points, what type of vehicle that was first operated by the Wright brothers and is now produced by firms like Boeing and Airbus?

ANSWER: air**plane**s (accept any additional information relating to the Wright **Flyer**, as all of the clues before "Wright" is read are about them)

(16) **The participants in one of these events are wealthy, as symbolized by four oranges by a window and a pinscher dog at the subjects' feet. On this painting's back wall, a convex mirror reflects the image of this event, showing that there are two witnesses. As depicted in a 1434 painting, this event's participants wear a (*)** black formal coat and a green dress. For ten points, name this title event of a Jan van Eyck painting, a portrait of Giovanni Arnolfini and his new bride.

ANSWER: **wedding** (accept **marriage**; accept any description of the **nuptials** of the Giovanni Arnolfini and his wife)

(17) **Marcus Sarjeant fired six blank shots at this ruler in 1981, barely managing to scare this ruler's horse. 1992 was described as this ruler's *annus horribilis*, as several extended family members had publicly reported affairs, including Sarah Ferguson and this ruler's daughter, (*)** Princess Anne. Operation London Bridge followed the passing of, for ten points, what longest serving Queen of England, who was succeeded by Charles III after her September 2022 death?

ANSWER: **Elizabeth II** of the United Kingdom (accept **Elizabeth** Alexanda Mary **Windsor**; prompt on Elizabeth)

(18) **At the end of this story, a promise is made that the door-slamming Charwoman will be sacked. A dream to attend the conservatory and study the violin is ruined in this story, as (*)** Grete must instead work to replace the main character's income. After suffering a wound from a thrown apple, the main character of this story can no longer crawl on the ceiling. For ten points, name this short story by Franz Kafka in which Gregor Samsa is transformed into a vermin.

ANSWER: The **Metamorphosis** (accept Die **Verwandlung**)

(19) **Every spring, hundreds of species of these organisms coordinate annual "mass spawnings" off Okinawa. Rising global temperatures threaten these animals and cause them to "bleach" dinoflagellates that live with them in (*)** symbiosis. Parrotfish forage off these animals, whose individual polyps are held together by calcium carbonate in the most diverse marine ecosystems on the planet. For ten points, name these cnidarians that construct reefs.

ANSWER: **coral**s (accept **coral** reefs)

(20) **A long-debated proposal would build, near this state's Frenchman Flat, a proposed nuclear waste facility under Yucca Mountain. The Truckee River flows through this state's self-proclaimed "Biggest Little City in the World" on its way out of Lake (*)** Tahoe, which this state shares with its western neighbor. The Hoover Dam lies on the Colorado River between Arizona and, for ten points, what state whose economy is fueled by gambling in Reno and Las Vegas?

ANSWER: **Nevada**

Bonuses

(1) The Seventh Coalition ended this ruler's "Hundred Days," a brief return to power after he escaped from Elba in February 1815. For ten points each,

Name this French emperor who fought essentially all of Europe at one point or another.

ANSWER: **Napoleon** Bonaparte (accept **Napoleon** I; prompt on "Bonaparte")

The Duke of Wellington and Gebhard von Blucher allied in the Seventh Coalition for this crucial June 1815 battle in modern-day Belgium, Napoleon's final defeat.

ANSWER: Battle of **Waterloo**

In this 1805 battle, Napoleon purposefully gave up his army's position on the Pratzen Heights, then smashed the Russian and Austrian forces that had occupied it. This battle shocked Austria badly enough to, eventually, dissolve the entire Holy Roman Empire.

ANSWER: Battle of **Austerlitz** (accept Battle of the **Three Emperors**)

(2) Late in his career, this artist described his earlier work as "warmed-over turkey", noting that the specific kind of energy for his old modal jazz belonged to "that era." For ten points each,

Name this musician who recorded the landmark jazz albums *Sketches of Spain*, *Birth of the Cool*, and *Kind of Blue*.

ANSWER: Miles **Davis** (accept Miles Dewey **Davis**)

Miles Davis was a virtuoso on this three-valved brass instrument.

ANSWER: **trumpet**

This first track on *Kind of Blue* has a soft piano and bass entrance before Davis enters on trumpet. "Freddie Freeloader" follows this track.

ANSWER: **So What**

(3) A compound in which carbon is bonded to one hydrogen and three atoms of this element was once used as an anaesthetic, even though it's tremendously toxic. For ten points each,

Name this halogen that has been used as a chemical warfare agent, both by humans in World War I, and against bacteria living in swimming pools.

ANSWER: **chlorine** (accept Cl_2)

Thanks to Fritz Haber, chlorine was deployed as a chemical warfare agent both in molecular form, and also bonded to carbon in phosgene and this other poisonous gas, which contains a sulfur atom too. This blistering agent is named for its odor.

ANSWER: **mustard** gas

Most dangerous pesticides contain chlorine, too, including atrazine, hexachlor, and this nasty chemical that was used to kill mosquitoes before Rachel Carson described its devastating effect on ecosystems in *Silent Spring*.

ANSWER: **DDT** (accept **dichlorodipheyltrichloroethane**)

(4) A draft of this Supreme Court decision, which argued that a right must be "deeply rooted in this Nation's history" to be guaranteed by the 14th Amendment, was leaked a month in advance. For ten points each,

Name this 2022 Supreme Court case that overruled *Roe v. Wade*, allowing individual states to ban abortion.

ANSWER: **Dobbs** v. Jackson Women's Health Organization

Some have speculated that the *Dobbs* leak prevented this Chief Justice of the Supreme Court from convincing the majority to take a more moderate approach in the ruling.

ANSWER: John **Roberts**

The majority opinion in *Dobbs* was written by this Associate Justice, the second-most senior after Clarence Thomas. Like Chief Justice Roberts, this conservative justice was appointed to the bench by George W. Bush.

ANSWER: Samuel **Alito**

(5) This character's assistance in holding the bastion of Saint Gervais earns him the trust of three men who, upon meeting him earlier in the book, each demanded to duel him. For ten points each,

Name this protagonist of an 1844 adventure novel who encounters the swashbuckling Athos, Porthos, and Aramis.

ANSWER: **D'artagnan** [dar-TAN-yon]

D'artagnan is the subject of three adventure novels by this author, including the aforementioned *The Three Musketeers*.

ANSWER: Alexandre **Dumas** [do-mah], père

In this non-musketeer Dumas novel, Edmond Dantès [dahn-tez] is falsely imprisoned in an island prison chateau, escapes, and uses hidden treasure to bankroll his revenge against those who wronged him.

ANSWER: The **Count of Monte Cristo** (accept Le **Comte de Monte Cristo**)

(6) Hadrons are formed from these smaller particles, which were hypothesized by Murray Gell-Mann. For ten points each,

Name these subatomic particles that come in six flavors. Three of these particles make up a proton.

ANSWER: **quark**s

A proton consists of one "down" quark and two quarks of this other, complementary flavor.

ANSWER: **up** quark

This third-generation quark, symbolized t, is by far the heaviest flavor of quark. Its large size gives it some interesting properties - for example, it doesn't form a hadron and can thus be studied on its own.

ANSWER: **top** quark

(7) This god was often depicted with the head of a wild dog or jackal. For ten points each,

Name this Egyptian guide for the dead.

ANSWER: **Anubis** (accept **Anpu** or **Inpu**)

Anubis oversaw the weighing of this organ after death. This organ was weighed against the feather of Ma'at to determine the worthiness of the deceased person.

ANSWER: **heart**

The weighing of the heart is described in this Egyptian New Kingdom text that built on earlier works like the *Pyramid Texts* and the *Coffin Texts*.

ANSWER: **Book of the Dead** (accept **Book of Coming Forth by Day**)

(8) Period romances have recently surged in popularity. Identify some ongoing romantic TV series, for ten points each.

This Regency-era Netflix series produced by Shondaland is based on romance novels by Julia Quinn. It stars Golda Rosheuvel as a Black Queen Charlotte overseeing the dramatics of the title family.

ANSWER: **Bridgerton**

This Regency-era PBS show is based on an unfinished Jane Austen novel, and follows the dramatic romance of Charlotte Heywood and Sidney Parker in a title seaside resort.

ANSWER: **Sanditon**

Breaking with the strong trend for Regency drama, the HBO comedy *Our Flag Means Death* follows the romance of Stede Bonnet and this real-life pirate, who captained the *Queen Anne's Revenge*.

ANSWER: **Blackbeard** (accept either underlined portion of **Ed**ward **Teach**; accept Edward **Thatch**)

(9) A writer with this last name wrote "How do I love thee? Let me count the ways" and was married to the poet of "Porphyria's Lover." For ten points each,

Give this last name shared by Elizabeth Barrett and her husband, Robert, a pair of British poets.

ANSWER: **Browning** (accept Elizabeth Barrett **Browning** and/or Robert **Browning**; accept the **Brownings**)

Elizabeth Barrett Browning's poem "How do I love thee? Let me count the ways" is in this poetic form. This type of poem has fourteen lines, and was frequently written by Shakespeare.

ANSWER: **sonnet**

Robert Browning often wrote monologues like "Porphyria's Lover" and this poem, in which a nobleman stands in front of a portrait and describes the jealous rage that caused him to order the death of his wife.

ANSWER: **My Last Duchess**

(10) An uprising in this location was led by a man who bared his breast, demanding that Governor William Berkeley either shoot him or let him lead a militia against local native Americans. For ten points each,

Name this colonial settlement, the site of Bacon's Rebellion.

ANSWER: **Jamestown**, Virginia (prompt on "Virginia")

Decades earlier, John Rolfe helped improve Jamestown's fortune by planting tobacco. In 1614, Rolfe married this Native American woman, who legendarily saved John Smith from execution.

ANSWER: **Pocahontas** (accept **Matoaka**; accept **Amonute**; accept Rebecca **Rolfe**)

Pocahontas was the daughter of this man, who led a native alliance of the same name.

ANSWER: **Powhatan** (accept **Wahunsenacah**, with very lenient pronunciation due to various English spellings of the Algonquian name)

(11) Lorado Taft taught sculpture at this city's Art Institute, a museum whose entrance is flanked by two bronze lions. For ten points each,

Name this major US city where the Pritzker Pavilion and Crown Fountain can be found in Millennium Park. Burnham Park and Jackson Park are also along this city's Lake Michigan shoreline.

ANSWER: **Chicago**

Millennium Park's most photographed artwork is this Anish Kapoor sculpture of polished stainless steel. You can give either its official name or its very popular nickname.

ANSWER: **Bean** (accept **Cloud Gate**)

South of Millennium Park and the Art Institute is one of the world's largest examples of these artistic water features, a memorial for Clarence Buckingham.

ANSWER: **fountain**s

(12) Electrical signals are passed between these cells, axon-to-dendrite, through small gaps called synapses. For ten points each,

Name these cells that transmit signals throughout the nervous system.

ANSWER: **neuron**s

To avoid unwanted electrical signals from popping off, neural axons are sheathed in an insulating layer of this fatty material. Small gaps in it are present at nodes of Ranvier.

ANSWER: **myelin** sheath

Loss of myelin leads to nervous system collapse in this debilitating disease, which scars white matter and often occurs in relapsing-remitting courses in patients. Its cause is still unknown.

ANSWER: **multiple sclerosis** (accept **MS**)

(13) This poet worked with his close friend, Samuel Taylor Coleridge, on the collection *Lyrical Ballads*. For ten points each,

Name this Lake Poet who wrote *Tintern Abbey*.

ANSWER: William **Wordsworth**

Wordsworth and Coleridge were part of this early-1800s literary movement that reacted against the Industrial Revolution by focusing on emotional and natural imagery.

ANSWER: **Romantic** Movement (accept word forms like **Romanticism**)

Wordsworth used natural imagery in a poem to describe "stars that shine / and twinkle on the milky way" and "a host of golden daffodils" in a poem that begins "I wandered lonely as" one of these fluffy weather phenomena.

ANSWER: **cloud**s (accept **I Wandered Lonely as a Cloud**)

(14) Twelve-year-old Hector Pieterson was one of hundreds of children shot and killed during a June 1976 protest against forced language instruction in this country. For ten points each,

Name this country where the Soweto riots broke out in response to police brutality.

ANSWER: **South Africa** (accept Republic of **South Africa**; accept **RSA**)

The Soweto uprising was a reaction to the apartheid-era requirement that black schools teach in Afrikaans, rather than in the more widely spoken English. Afrikaans evolved from this European language, spoken in Holland and in the East India Company colony on South Africa's Cape of Good Hope.

ANSWER: **Dutch** language (accept **Netherlandic** language)

The fall of apartheid in South Africa was marked by the release of this activist from prison, as well as his election as South Africa's first Black president in 1994.

ANSWER: Nelson **Mandela** (accept Nelson Rolihlahla **Mandela**)

(15) Lyman Spitzer suggested the idea for this type of equipment, and NASA launched one named for him in 2003. For ten points each,

Name this astronomy equipment that doesn't have to account for Earth's atmosphere distorting its images. One of these objects launched in 1990 is named for Edwin Hubble.

ANSWER: space **telescope**

This space telescope, launched in 2021 after countless delays, is named for a controversial NASA administrator. NASA released its first Deep Field image in July 2022.

ANSWER: James **Webb** Space Telescope (accept **JWST**)

The Spitzer and Webb telescopes operate in this range of the electromagnetic spectrum, whose wavelengths are just longer than those of visible light waves.

ANSWER: **infrared** (accept **IR**)

(16) Leonard Wood led this force, which became known as "Wood's Weary Walkers" because they were a cavalry unit sent into battle without horses. For ten points each,

Name this regiment that, in 1898, joined the Buffalo Soldiers of the 10th Cavalry in an assault on Kettle Hill.

ANSWER: **Rough Rider**s (accept the **1st** U.S. **Volunteer Cavalry**)

This future US President resigned his post as Assistant Secretary of the Navy to join the Rough Riders in the Spanish-American War.

ANSWER: **T**heodore **Roosevelt** (accept **T**eddy **Roosevelt**; prompt on "Roosevelt" alone)

The Rough Riders' service in the Spanish-American War took place on this Caribbean island, where the sinking of the *Maine* in Havana Harbor sparked the conflict.

ANSWER: **Cuba**

(17) The largest example of this ecosystem extends from northeastern China and Mongolia to Eastern Europe; its temperate climate and terrain are credited with allowing the spread of technologies like the wheel and horse riding. For ten points each,

Name this type of inland region that is typically marked by flat grassland plains, as there is not enough rainfall to promote forest growth but too much rainfall to allow desertification.

ANSWER: **steppe**s (accept the Eurasian **steppe**; accept the great **steppe**)

The Eurasian steppe is crossed by this western Russian mountain range, which is typically cited as a boundary between Europe and Asia.

ANSWER: **Ural** Mountains

The Urals extend southward into this landlocked country, the largest former Soviet republic by area other than Russia. Much of this country's northern land is dry steppe.

ANSWER: **Kazakhstan**

(18) Give the following about one of the world's oldest surviving religions, Zoroastrianism, for ten points each.

Zoroastrianism was founded 2 to 3 thousand years ago by Zoroaster in this region. It corresponds to a modern-day country with capital Tehran, where converting to Zoroastrianism from Islam is illegal.

ANSWER: **Persia** (accept Islamic Republic of **Iran**)

Burying human corpses would defile the soil, so Zoroastrians ritually perform sky burials in these round, raised structures, where dead bodies are exposed to the elements and scavenging birds.

ANSWER: **Tower of Silence** (accept **dakhma**s)

In Zoroastrianism, purification can be done with either cleansing *aban*, water, or destructive *atar*, this phenomenon. In India, there are roughly 150 temples dedicated to maintaining the *atar*.

ANSWER: **fire** (accept **burn**ing and other synonyms for the act of setting something on fire)

(19) This theorem is commonly cited in explanations of why the number 1 isn't prime. For ten points each,

Name this theorem, which states that every integer larger than 1 has a unique prime factorization.
ANSWER: **Fundamental** Theorem of **Arithmetic** (prompt on partial answers)

One isn't a prime number, but it also isn't classified as this type of number, because you cannot express 1 as the product of two or more prime numbers.
ANSWER: **composite** number

Books Seven and Nine of this work by Euclid [YOO-klid] outline an ancient proof of the Fundamental Theorem of Arithmetic. This work includes plenty of lessons in number theory and logic, but it is most famous today for its study of geometry.
ANSWER: **Elements**

(20) Give the following about reactionary American literature in the early twentieth century, for ten points each.

Scholars debate whether L. Frank Baum was promoting his populist politics in his stories about this land. Residents of this land, like the Scarecrow and Tin Man, may represent downtrodden American farmers and laborers, respectively.
ANSWER: **Oz** (accept The Wizard of **Oz**; accept The Wonderful Wizard of **Oz**)

Upton Sinclair sought to expose horrendous conditions in Chicago's meatpacking plants with this 1906 novel. Instead of leading to a socialist revolution, the public response to this book focused on food safety.
ANSWER: The **Jungle**

In John Steinbeck's *The Grapes of Wrath*, Tom Joad watches this Christ figure get beaten to death while leading a labor strike; Tom then murders the attacker.
ANSWER: **Jim Casy** (accept either or both underlined names)