

Michigan Winter Tournament

"The Holy Roman Empire of Tournaments"

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Packet 9

Tossups:

1. **They're not protons, but these particles are emitted as a result of silicon in a star's core photodisintegrating as a star completes the oxygen-burning process. In another process, these particles are most commonly produced as the small charged fragments due to their high stability; if produced by that process, these particles are called "long range." George (*) Gamow modeled the emission of these particles as tunneling. These particles are produced as a result of the proton-proton chain reaction. The formation of thorium-234 from uranium-238 involves the release of one of these particles from the nucleus. For 10 points, name these particles which consists of two protons and two neutrons and identical to a helium-4 nucleus.**

ANSWER: **alpha particles** [accept **helium nuclei** until read] <Phadnis, Physics>

2. **An opera named after this profession includes a soprano aria based on "Ah! vous dirai je maman" sung by Coraline; the unhappy married Don Belflor is a man retired from this profession in that opera, composed by Adolphe Adam. In another opera, a character with this profession was confused by another character's mention of a "coups de navaja" before being challenged to a knife duel. A character with this profession warns himself in an aria that "a dark eye is watching" and tells himself to be (*) "on guard" and that "love awaits;" that aria, often titled for this profession, begins with "Votre toast" as the singer enters Pastia's Inn boasting about his victories in the ring. For 10 points, identify this occupation of Escamillo, who rivaled the soldier Don José in the Georges Bizet opera *Carmen*.**

ANSWER: **torador** [or **bullfighter** or **torero**; accept **matador** even though it's technically different] <McMaken, Other Auditory>

3. **In a novel set during the reign of this empire, the fabric seller Esther helps to arrange marriages by carrying the letters of lovers back and forth. A character in a novel set in this empire attempts to find the identity of his uncle's killer by examining the nostrils of several drawings of horses. The love story between Shekure and Black in a novel set in this empire is patterned deliberately on Nizami Ganjavi's *Khosrau and Shirin*. The narrators of a novel set in this empire include the murdered (*) miniaturist Elegant Effendi, a coin, Satan, and the title color. For 10 points, name this empire where Orhan Pamuk set *My Name is Red*, which is set during the reign of Sultan Murad III.**

ANSWER: **Ottoman** Empire <O'Rourke, World/Other Literature>

4. **An automorphism of a group is said to be an inner automorphism if it can be expressed as this operation with respect to an element of the group. A subgroup H of a group G is normal if it is invariant under this operation with respect to every element of G. A complex matrix is said to be Hermitian if it is equal to this function of its transpose. If a complex number z is a (*) solution to a real-valued polynomial, this function of z must also be a solution to that polynomial. In algebra, this operation can be performed by left-multiplying by some element and right-multiplying by that element's inverse. For 10 points, name this operation whose "complex" form consists of negating the imaginary part of a complex number.**

ANSWER: **conjugation** [or **conjugate**, or more specific answers like **complex conjugate**] <Thompson, Mathematics>

5. **These people practice a form of martial arts whose name comes from "to pound a lion" called *bokator*, whose fighters wear the scarf-like *krama*. Linguistic evidence from Óc Eo is important in linking these people with a Kingdom they may have ruled, the Kingdom of Funan. These people name an Empire originally centered on Hariharalaya which subsumed the Chenla Kingdom. Zhou Daguan wrote a first person account of this people's empire, including a description of its once gold-covered temple at (*) Bayon. These people declared an empire under their first *chakravartin*, Jayavarnan II. A leader of a regime named for these people declared a Year Zero and committed a genocide in its "killing fields." For 10 points, name these people who name a Cambodian state ruled by Pol Pot.**

ANSWER: **Khmer** people [accept **Khmer** Empire or **Khmer** Rouge; accept Mon-**Khmer**] <Laurie, World History>

6. Nari Ward created a 2011 installation using shoelaces to depict this phrase, which also titles his exhibition at the New Museum. In the style of his "Hope" posters, Shepard Fairey released a series depicting women using this phrase. This phrase was attacked as "pernicious, impolitic, and dangerous" during the Virginia Ratifying Convention in a speech by (*) Patrick Henry. A website created by the Obama administration named for this phrase uses 100,000 signatures as the threshold for an official response. This phrase opens one text by Gouverneur Morris, which aims to "secure the Blessings of Liberty to ourselves and our Posterity." For 10 points, give these three words that begin the Preamble to the U.S. Constitution.
ANSWER: "We the People of the United States..." [prompt on partial answer] <Tsai, Other Academic>

7. At the beginning of this novel, one character questions why a lodger in his aunt's home said the place "smelt good." The main character of this novel wrote a poem that ends "and on to the devil my wretched soul I bare." After receiving a letter at a ball informing him that another character is "in hell," the narrator of this novel hastily declines to dance with (*) Maria, instead meeting with the saxophonist Pablo in a dimly-lit room. The narrator of this novel considers suicide on his 50th birthday until he is taught the foxtrot and Boston by Hermine, whom he kills in the Magic Theatre. For 10 points, name this novel about Harry Haller's search for a theatre "for madmen only," written by Herman Hesse.
ANSWER: Steppenwolf [or *Der Steppenwolf*] <Rodriguez, European Literature>

8. The first chapter of this book says that "despotism" is a legitimate way to rule barbarians if it will improve their status. Human beings are not machines according to the author of this book, but rather, are like trees that grow according to their internal forces. This book's author says individuality is the summum bonum of the (*) state. This text, whose author thought previous attempts at democracy led to a "tyranny of the majority," argues for an "absolute freedom" of "opinion and sentiment." The author of this work suggests that the role of government is to prevent the harm of others as measured by the lowering of utility. For 10 points, name this political work by John Stuart Mill about natural rights and human freedom.
ANSWER: On Liberty <Bunker, Philosophy>

9. One inhibitor of this protein is more likely to cause a hypersensitivity reaction in people with HLA-B*5701 ["H-L-A-B 5701"] polymorphism. In one organism, mutations in the YMDD domain of this protein make it resistant to a drug abbreviated 3TC. An organism named for Moloney expresses a version of this protein used in the laboratory. Clontech's SMART technology and many single-cell transcriptomics protocols use TSOs to take advantage of this protein's (*) template-switching ability. Both integrase and this protein are products of the pol gene. Zidovudine, or AZT, inhibits this protein. This protein is used to create cDNA libraries. For 10 points, name this protein expressed by retroviruses like HIV that transforms RNA to DNA.
ANSWER: reverse transcriptase [or RT] <Mukherjee, Biology>

10. A recent book on this thinker by Peter Boettke ["bet-key"] emphasizes the role of the division of knowledge as part of his attempt to justify a cosmopolitan liberalism for the 21st century. This thinker argued that a purely quantitative method is unsatisfactory for social science because we use limited numerical information to understand primarily group human action to argue against positivism. This thinker wrote about how the existence of spontaneous or extended orders shows that a human-generated policy can not be the most (*) efficient in his *The Fatal Conceit*. In his most famous book, this economist argued that every restrictive action a government takes reduces freedom in an attack on central planning. For 10 points, name this Austrian economist who wrote *The Road to Serfdom*.
ANSWER: Friedrich August von Hayek <Bunker, Economics>

11. He didn't issue it, but a Pope with this name suspended Elizabeth I's excommunication before sponsoring a force during the Second Desmond Rebellion. A Pope with this name employed the English *condottieri* John Hawkwood, who was paid off prior to the War of the Eight Saints. The first Bishop of Canterbury, Augustine, led a mission sent by a Pope with this name to convert the Anglo-Saxons of Kent. The most recent French pope, who ended the (*) Avignon papacy, had this name. A Pope of this name and Henry IV during the Investiture Controversy. The astronomer Christopher Clavius' calculations helped establish a system named for a Pope with this name that replaced one named for Julius Caesar. For 10 points, give this papal name of sixteen popes, one of whom names the most widely used calendar.
ANSWER: Gregory [accept Gregory XIII or Gregory XI or Gregory I or Gregory VII; accept St. Gregory the Great or St. Gregory the Dialogist] <Laurie, European History>

-- This packet contains 22 tossups. Halftime is after tossup 11. --

12. **Following the drowning of a young woman in this city's canals, Julián Santana moved to an island in this city and hung thousands of dolls on it to appease her spirit. Massive interlocking suspended shelves characterize this city's Alberto Kalach-designed Vasconcelos Library. This city's metro system associates a unique image with each station due to widespread illiteracy when it was built. Museums and a zoo are found in this city's Bosque ["boss-kay"] de (*) Chapultepec, a large public park which also contains its former imperial castle. The volcano Popocatepetl overlooks this city, where you can attend soccer matches at the Estadio Azteca. For 10 points, identify this capital city of America's southern neighbor.**
ANSWER: **Mexico** City [or Ciudad de **México**] <Thompson, Geography>

13. *Description acceptable.* **Turkish lawmaker Öztürk Yılmaz ["oez-tuerk yul-mahz"] was dismissed from his party in 2018 for advocating that this action be done in Turkish, which had previously been required in Turkey until the advent of multi-party rule in 1950. When this action is performed before sunrise, some adherents insert a declaration that a certain practice "is better than sleep." A freed Abyssinian slave named Bilal ibn Rabah was chosen as the first person to do this action. In modern times, (*) loudspeakers have been installed on minarets to aid in this action, which is usually performed musically by performers called muezzins. For 10 points, identify this pronouncement by which Muslims are summoned to the mosque five times a day.**

ANSWER: **adhan** [or **athan**, or **azan**, or **ezan**, or Islamic **call to prayer**; do NOT accept or prompt on "prayer" or similar answers -- they're not the same thing!] <Thompson, Religion>

14. **A version of this poem concerns a group of men who "had a couple of feelers down at Tom's place." A draft of this poem contained the exclamation "Wonderful wonderful wonderful!" next to the lines "I think we are in rats alley / Where the dead men lost their bones." A section of this poem reveals that Lil nearly died after having George, her fifth child. The lines "Gentile or Jew" begin a section of this poem that asks "consider (*) Phlebas, who was once handsome and tall as you," in an allusion to the death of a sailor that was earlier predicted by Madame Sosostris. This poem's epigraph, "I want to die," quotes the Sibyl from the *Satyricon*. For 10 points, name this Modernist poem that begins "April is the cruelest month," written by T.S. Eliot.**

ANSWER: "The **Waste Land**" <Rodriguez, British Literature>

15. **Bruce Lipschutz' group produced a compound containing this element coordinated to hydride and SegPhos, commonly called this element's hydride "in a bottle." It's not palladium, but this element is used as a co-catalyst in a coupling reaction between a terminal alkyne and an aryl or vinyl halide; that reaction is the Sonogashira coupling. It's not lithium, but a reagent with a negatively charged form of this element reacts with alpha-beta unsaturated carbonyls at the (*) 4 position exclusively; that is a Gilman reagent. Using Benedict's reagent and Fehling's solution in the presence of sugar is signaled by a color change from the blue 2+ ion of this element to its reddish 1+ oxide form. For 10 points, name this highly ductile and conductive element with atomic number 29.**

ANSWER: **copper** [accept **Cu**] <Phadnis, Chemistry>

16. **Musicians in this place sang repeating patterns of long and short notes known as "rhythmic modes" on top of long, sustained notes. A mass ordinary with this name composed for the Cathedral at Reims was the first to be attributed to a single composer, Guillaume de Machaut. Anonymous IV was possibly an English student who studied at this location. The *ars antiqua* and *organum quadruplum* were first composed at this location by (*) Léonin and Pérotin, which were some of the earliest motets. Emmanuel is the name of the largest and oldest of the ten bells at this location, which was not damaged during an April 2019 fire. For 10 points, a 12th- and 13th-century school of polyphony was housed in what Parisian cathedral?**

ANSWER: **Notre-Dame** de Paris [accept **Nostre Dame**; prompt on Our Lady of Paris] <McMaken, Classical Music>

17. **The industrialization of this commodity rested at every step on violence according to a Bancroft-winning book titled for the "Empire" of it by Sven Beckert. James Hammond gave a speech which argued no one would make war on this commodity, a concept known as its namesake "diplomacy." This commodity is the primary one produced by a system defended economically by Stanley Engerman and Robert Fogel in *Time on the Cross*. This commodity, a shortage of which triggered a famine in (*) Lancashire, surged in production in Egypt following an American Civil War-era blockade. This commodity's industrialization was aided by the invention of a namesake "gin" invented by Eli Whitney. For 10 points, name this commodity farmed by African-American slaves in the American South.**

ANSWER: **cotton** <Laurie, American History>

18. In a 2019 play named for these people, Kaneisha role-plays sexually as one of them; that play was written by Jeremy O. Harris. Two of these people learn of a plan to sterilize women and infect men with syphilis in a novel in which one of them, Caesar, is killed while being chased by Ridgeway. Dana, who descends on her mother's side from these people, repeatedly time travels to save grandfather Rufus in Octavia Butler's (*) *Kindred*. These people name a genre of literature that often features religious redemption arcs, such as the one seen in the *Interesting Narrative of the Life of Olaudah Equiano*. For 10 points, name these people, whose namesake "narratives" includes ones written by Frederick Douglas.

ANSWER: **slaves** [accept more specific answers like African-American **slaves**; accept **Slave Play**; the unnamed novel in the second line is Colson Whitehead's *The Underground Railroad*] <Laurie, American Literature>

19. Sick children who became priests to this deity were usually painted black and adorned with quail feathers. Chalchiuhtlicue ["chaal-chee-oot-lee-kway"] destroyed all humans in a flood of her tears after this deity accused her of faking kindness towards the humans. This deity seduced Tlaloc's wife (*), Xochiquetzal ["show-chee-ket-zahl"], leading Tlaloc to destroy the earth and all humans in a downpour of fire. This deity offered his foot as bait to capture the crocodile Cipactli ["kee-pahkt-lee"] because they kept eating the world, so he is often depicted with one leg. After one of this deity's brothers knocked him from the sky, this deity commanded his jaguars to eat all the people they had created. For 10 points, name this Aztec god of the night sky, rival and brother of Quetzalcoatl ["ket-zahl-kwatl"].

ANSWER: **Tezcatlipoca** <Ranganathan, Mythology>

20. One author connected this concept's rejection of methodological individualism in favor of methodological holism to ideas originating in Plato. In that book, this concept arises due to a "strain of civilization" and is contrasted with a system that instead uses "problem solving." The principles of "everyone is educated to be a hero" and a (*) "cult of action for action's sake" are characteristic of regimes that subscribe to this concept according to Umberto Eco. The use of racism as a "ideological weapon for imperialism" is analyzed in a book on the *Origins of [this concept]* by Hannah Arendt. For 10 points, name this system of government criticized by Popper in his *Open Society* and oft-contrasted with authoritarianism which characterizes the government of Nazi Germany.

ANSWER: **totalitarianism** [accept **fascism** or **authoritarianism** before "Arendt" is read; prompt on "the closed society"] <Bunker, Political Science>

21. One leader of this country "could not help but think of Joan of Arc" upon meeting Hitler. In this country, "Bible Bill" headed a government that issued "prosperity certificates" which were pejoratively known as "funny money". During the Great Depression, cars in this country were converted into horse-drawn wagons called "Bennett Buggies." A constitutional crisis in this country began when a prime minister's request to dissolve parliament was refused by (*) Lord Byng. The 1930s in this country saw the formation of the Social Credit Party and the CCF, which would merge into the New Democratic Party. For 10 points, name this country, led for many years by William Lyon Mackenzie King, which held Allied conferences in its province of Quebec.

ANSWER: **Canada** <Stevenson, Other History>

22. During conservation of an artwork from this civilization, an animal in a waterfowl hunting scene was discovered to have a gilded eye. Artists from this civilization used red pigment dust to create grids to plan proportions of figures, which they then painted over. A stucco-coated sculpture from this civilization is believed to be a model for official portraits due to its missing quartz left eye. A "shen ring" is a circular motif from this civilization, which elongates to become a (*) cartouche that encircles names. Hierarchical proportions and figures in profile are typical of this ancient civilization. The sculptor Thutmose was active during this civilization's Amarna period. For 10 points, what civilization made the bust of Nefertiti?

ANSWER: (Ancient) **Egyptian** civilization <Tsai, Painting>

Bonuses:

1. This thinker, who developed the theory of reification, wrote an essay in which he defends the realism of authors like Thomas Mann from modernist critics. For 10 points each:

[10] Name this 20th century philosopher and historian who wrote an analysis of "antinomies of bourgeois thought" in his book *History and Class Consciousness*.

ANSWER: György **Lukács** ["joorj loo-katch"]

[10] Lukács was one of the founders of the Western form of an ideology that followed this man. This German and Friedrich Engels wrote *The Communist Manifesto*.

ANSWER: Karl **Marx**

[10] Drawing from the early Marx and Hegel, Lukács used this concept in *History and Class Consciousness* to form the object to be critiqued in reification. In Marxism, this concept, which comes in four main forms, is a result of the capitalist estrangement of one from their humanity.

ANSWER: **alienation** [accept **Entfremdung**] <Bunker, Philosophy>

2. In one scene in this poem, two characters fight so fiercely that even the surf was angry, "gnashing its tail like a foaming dogfight." For 10 points each:

[10] Name this Caribbean poem where Hector and Achille fight for the affection of Helen on the island of St. Lucia. In this poem, Achille paints the phrase "In God We Trust" on his boat.

ANSWER: **Omeros**

[10] Derek Walcott's *Omeros* is a reimagining of this Homer epic about the Trojan War.

ANSWER: *The **Iliad***

[10] The title location of this Walcott poem is where a "smell of dead limes" quickening "in the nose" represents "the leprosy of empire." This poem's narrator also thinks of "men like Hawkins, Walter Raleigh, Drake, ancestral murderers and poets" who committed "ulcerous" crimes.

ANSWER: "**Ruins of a Great House**" <Rodriguez, World/Other Literature>

3. Muslim hotelier Jaaber Hussein takes this action every year at a ceremony attended by the Israeli finance minister and the Chief Rabbinate of Israel. For 10 points each:

[10] Identify this action, which results in Hussein temporarily gaining legal ownership of almost \$150 million worth of food products owned by the Israeli state. A description is acceptable.

ANSWER: symbolically **buying** all the **chametz** in Israel [accept equivalents, accept things like **leavened** bread products for chametz]

[10] The chametz has to be sold to a non-Jew in order to fulfill the requirement that Jews not possess leavened bread products during this Jewish springtime holiday period, which often begins with a *seder* and lasts either seven or eight days.

ANSWER: **Pesach** [or **Passover**]

[10] The seder plate typically contains a *zeroa*, which is one of these objects and represents the Korban Pesach lamb sacrifice that was historically performed at the Second Temple.

ANSWER: a **bone** [accept more specific answers] <Thompson, Religion>

4. This is not a pipe, but one of these objects features in a 1964 painting that also includes the caption in French, "This is not [one of these objects]." For 10 points each:

[10] Name this object that fills up the whole room in *The Listening Room*. Two of these objects wear masks in *The Married Priest*, and one covers the face of a man in a red tie who stands in front of a low wall by the sea in another painting.

ANSWER: green **apples** [or **pommes**] (The unnamed painting is *The Son of Man*)

[10] "This is not a pipe" is proclaimed in *The Treachery of Images* by this Belgian Surrealist painter, who also painted all of those apples.

ANSWER: René (François Ghislain) **Magritte**

[10] This other object, which is not a pipe, replaces the human figure in Magritte's painting *Perspective*, based on Jacques-Louis David's ["dah-VEED's"] *Portrait of Madame Récamier* ["re-CAM-ee-ay"]. Three of these objects replace people in Magritte's riff on Manet's *The Balcony*.

ANSWER: **coffins** [or **caskets** or other reasonable answers] <Tsai, Painting>

5. This city reached its zenith under a ruler who constructed its South West Palace, which contained doorways flanked by lamassu figures and reliefs depicting a victory at the Siege of Lachish. For 10 points each:

[10] Name this city legendarily built by Ninus. It was the center of a cult worship of a Goddess during the reign of Shamshi-Adad I.

ANSWER: **Nineveh**

[10] The apocryphal Ninus was married to this fictional Queen, who married him after the death of her first husband Onnes. She legendarily waged war on Armenia because their King Ara the Beautiful would not marry her.

ANSWER: **Semiramis**

[10] Among the other things attributed to her, in this case by Diodorus Siculus, is the Behistun Inscription, which was actually created by this King. This Persian ruler had his invasion of Greece halted at the Battle of Marathon.

ANSWER: **Darius I** [or **Darius the Great**] <Laurie, Other History>

6. The DNA of this region of a chromosome is essential for the recruitment of the cohesin complex, and misregulation of this region of a chromosome contributes to mis-segregation of chromosomes. For 10 points each:

[10] Name this specialized constricted region of a chromosome. The point form of this region of a chromosome is smaller and much more compact than the regional form.

ANSWER: **centromere**

[10] Spindle fibers attach to the centromere of each chromosome during this process in which the cell divides through prophase, metaphase, anaphase, and telophase.

ANSWER: **mitosis**

[10] As opposed to most organisms, in organisms with this type of chromosome, the entire length of the chromosome acts as the centromere. In this type of chromosome, there is not one primary constriction, and it is exemplified in the organism *C. elegans*.

ANSWER: **holocentric** chromosome <Phadnis, Biology>

7. The final scene in this short story is a man watching a slip of paper with his address on it being blown away in the wind. For 10 points each:

[10] Name this short story, where Mr. Kapasi tells tales of translating Gujarati in a doctor's office. This story ends with Mina angrily walking away from Mr. Kapasi, who suggested that she feels guilt instead of pain for cheating on Raj.

ANSWER: **"Interpreter of Maladies"**

[10] "Interpreter of Maladies" was written by this Indian-American author, whose other stories in the same collection include "Sexy" and "A Temporary Matter." She also wrote *The Namesake*.

ANSWER: Jhumpa **Lahiri** [or Nilanjana Sudeshna **Lahiri**]

[10] In "A Temporary Matter," after Shoba reveals she is moving out, Shukumar retaliates by revealing this fact to Shoba. Shoba initially refused to learn it because she wanted it to be a surprise, but later took pride in taking refuge in the mystery of this fact. A description is acceptable.

ANSWER: the **sex** of their stillborn **baby** [or their **baby** was a **boy**; accept similar descriptions] <Tsai, American Literature>

8. A euphemistic term meaning "transformed into mist," *vernebelt*, originated to describe people abducted as a result of this policy. For 10 points each:

[10] Name this 1941 decree, approved by Wilhelm Keitel, which enabled Nazi officers to abduct suspected resisters while keeping their fate secret from their families.

ANSWER: **Night** and **Fog** [accept *Nacht und Nebel*]

[10] If a person abducted under the Night and Fog Decree was not executed within eight days, they were transferred to the care of this Nazi secret police.

ANSWER: **Gestapo** [accept *Geheime Staatspolizei*]

[10] The Gestapo was folded into the RHSA, a collection of Nazi security forces headed by this man, who was also responsible for creating the *Einsatzgruppen* and establishing the concentration camp system by setting up Dachau.

ANSWER: Heinrich **Himmler** <Laurie, European History>

9. A 2019 *New Yorker* exposé on this author revealed his likely impersonation of his brother Jake during a series of emails where he lied about undergoing cancer treatment; this author then claimed Jake committed suicide. For 10 points each:

[10] Name this author of *The Woman in the Window* who claimed his brother suffered from cystic fibrosis and died in his care. His brother Jake is, in fact, very much alive.

ANSWER: Dan **Mallory** [or A.J. **Finn**]

[10] Among Mallory's many lies was that he recommended the publishing of this author's *The Cuckoo's Calling*, which she wrote under the pseudonym Robert Galbraith. She also wrote the *Harry Potter* series.

ANSWER: J.K. **Rowling** [or Joanne **Rowling**]

[10] Mallory also claimed, incorrectly, that he received a PhD from Oxford for work largely on this "Talented" Patricia Highsmith character, who is played by Matt Damon in a movie where he beats the Jude Law-played Dickie Greenleaf with an oar.

ANSWER: **Tom Ripley** [accept either underlined part; accept The Talented Mr. **Ripley**] <Laurie, Other Academic>

10. A 2018 paper credits an anonymous Ukrainian math enthusiast going by "Grizzly Mike" with the construction of acute sets whose size is proportional to this function of the number of dimensions. For 10 points each:

[10] Identify this function, which also gives the sum of n choose k over all k from zero to n inclusive.

ANSWER: **2 to the power of n** [or **2 to the n**; accept answers with different variables]

[10] An anonymous 4chan poster solving a problem about different ways to watch a time-travel anime series established the best-known lower bound for the size of the "super" variety of these mathematical objects, which also form the elements of symmetric groups.

ANSWER: **permutations**

[10] Perhaps the best-known example of an amateur contribution to math, though, is President James Garfield's proof of this classical plane geometry result, which relates the lengths of the legs and hypotenuse of a right triangle.

ANSWER: **Pythagorean** theorem <Thompson, Mathematics>

11. During this song, Mark hopes that Roger writes a "bittersweet, evocative song [...] that doesn't remind us of Musetta's Waltz", referencing the show's inspiration. For 10 points each:

[10] Name this song, which lists many things and names, including Lenny Bruce, Vaclav Havel, and Uta Hagen, in celebration of their lifestyle and of "being an us, for once/Instead of a them."

ANSWER: "La **Vie Bohème**" [do not accept or prompt on "*La bohème*"]

[10] "La Vie Bohème" is from this Jonathan Larson musical, which was inspired by Giacomo Puccini's opera *La bohème*. "Seasons of Love" from this musical opens with the famous line "525,600 minutes."

ANSWER: **Rent**

[10] Another Puccini reference is that the female lead in *Rent* and *La bohème* both have this first name. In *Rent*, this character sings "Light My Candle" while trying to seduce Roger, significantly more aggressively than her operatic counterpart wooing the poet Rodolfo during "O soave fanciulla".

ANSWER: **Mimi** [or **Mimi** Marquez; prompt on "**Lucia**" with "What is her more commonly used name?"] <Tsai, Other Auditory>

12. This city was once home to an Eastern Enclosure which contained birds that are the national emblem of the modern-day country in which this city lies. For 10 points each:

[10] Name this now-ruined city built by the Shona people which contained a Great Enclosure with a 820 feet long wall.

ANSWER: **Great Zimbabwe** [do NOT accept or prompt on just "Zimbabwe"]

[10] The residents of Great Zimbabwe traded with the Kilwa sultanate, which was based in this modern-day country. This country is also the site of the ruins of Engaruka, which was abandoned in the 18th century.

ANSWER: United Republic of **Tanzania**

[10] The Shona people were part of this larger ethnolinguistic group which experienced an expansion in Southern Africa sometime in the first millennium BC.

ANSWER: **Bantu** <Bunker, World History>

13. In one novel by this author, Sibylla spurns the advances of the Duke and instead copulates with her brother Wiligis. For 10 points each:

[10] Name this author who wrote about the abandoned child Gregory, who marries his mother Sibylla in *Holy Sinner*. This author also described Gustav von Aschenbach's yearning for the Polish boy Tadzio in *Death in Venice*.

ANSWER: Thomas **Mann**

[10] Max Frisch's *Homo Faber*, whose protagonist is from this country, also contains themes of incest, as the protagonist accidentally has sex with his daughter Hanna, whom he thought was aborted. *Jakob von Gunten* author Robert Walser is also from this country.

ANSWER: **Switzerland** [or **Swiss Confederation**; or Confederation **Suisse**; or **Confederazione Elvetica**; or Confederazione **Svizzera**; or **Confederaziun Helvetica**; or **Helvetia**; or the **Helvetic Republic**; or **Schweiz**; or **Schweizerische Eidgenossenschaft**]

[10] This author often had to write about sexual topics like incest under a pseudonym as he did for his perverse *My Mother*. This French author wrote about the sexual exploits of the exhibitionist narrator and his lover Simone in "The Story of an Eye."

ANSWER: Georges **Bataille** ["Bah-tie"] <Bunker, European Literature>

14. This effect was discovered by using a silicon-based MOSFET which allowed for a higher accuracy method of determining the fine structure constant. For 10 points each:

[10] Name this effect observed at low temperatures, in which the namesake conductance is a multiple of elementary charge squared over Planck's constant. This effect can be used to measure the von Klitzing constant and the magnetic flux quantum.

ANSWER: integer **quantum Hall** effect [prompt on **Hall effect**]

[10] To explain the fractional quantum Hall effect, a theory has been put forth about a fermionic quasiparticle described by this term. A "sea" of this type of fermion has been studied by Jain and others.

ANSWER: **composite** fermions

[10] The classical Hall effect explains the production of a potential difference which occurs after this field is applied orthogonal to the flow of current.

ANSWER: **magnetic** field <Bunker, Physics>

15. In one book, this thinker defined the title concept as a "vivid awareness of the relationship between the individual and the wider society." For 10 points each:

[10] Name this sociologist who wrote *The Sociological Imagination*. This sociologist discussed the domination of the title group over society in his *The Power Elite*.

ANSWER: C. Wright **Mills** [accept Charles Wright **Mills**]

[10] C. Wright Mills said that the understanding of this aspect of a society and the life of the individual are intertwined. This aspect of society was theorized to be crafted by Great Men while other people who studied this aspect of society include Charles Beard.

ANSWER: **history** [accept specific examples like American **history**]

[10] The concept of sociological imagination led this Chicago sociologist to view culture as an emerging entity. This symbolic interactionist wrote about deviance theory in books like *Outsiders*.

ANSWER: **Howard S. Becker** [prompt on **Becker**; do NOT accept the economist Gary Becker] <Bunker, Psychology/Sociology>

16. In a calendar named for these people, Edmund Spenser depicted the life of Colin Clout as a member of this profession across the course of twelve months. For 10 points each:

[10] Name this profession. A Walter Raleigh poem named for a "reply" to a person in this profession begins "If all the world and love were young."

ANSWER: **shepherding** [or The **Shepherd**es Calendar; or "The Nymph's Reply to the **Shepherd**"]

[10] In this pastoral romance, which was written to entertain the author's sister, Duke Basilius dies after drinking a potion intended for Cleophila. The heroine of this prose work names a prayer legendarily recited by Charles I shortly before his execution.

ANSWER: *The Countess of Pembroke's* **Arcadia**

[10] Philip Sidney, the author of *Arcadia*, was influential in popularizing the English version of this fourteen-line poetic form. Shakespeare wrote many poems in this form to "The Dark Lady."

ANSWER: english **sonnets** <Laurie, British Literature>

17. Toxus and Plexippus were killed following the hunt for this creature. For 10 points each:

[10] Name this mythological creature. During the hunt for this creature, Peleus accidentally killed Eurytion, and many of the hunters fought each other for the spoils.

ANSWER: **Calydonian Boar** [or **Aetolian Boar**; prompt on "boar"]

[10] Chiron advised this person to drive the Erymanthian Boar into thick snow in order to capture it for his fourth labor. When this strongman son of Zeus brought the boar back to Tiryns, it frightened Eurystheus into hiding in a jar.

ANSWER: **Heracles**

[10] This wild pig was killed by Theseus on his way to Athens. According to Strabo, it was the mother of the Calydonian Boar.

ANSWER: **Crommyonian Sow** <Ranganathan, Mythology>

18. *Cupid's Grotto*, a number of crayfish pools, and this artist's *Apennine Colossus* are all that remain of the original architecture in the Villa Demidoff. For 10 points each:

[10] Name this artist who depicted a man lifting a woman in the air while on top of another man's shoulders in his marble *The Rape of the Sabine Women*, which is located in the Loggia dei Lanzi.

ANSWER: **Giambologna** [or John de **Boulougne**; or Giovanni da **Bologna**]

[10] Giambologna sculpted his *St. Luke* for one of the 14 niches in this church, which also included Donatello's sculptures of *St. George* and *St. Mark*.

ANSWER: **Orsanmichele**

[10] Giambologna's *Rape of the Sabine Women* was located near this other renaissance sculptor's *Perseus with the Head of Medusa*.

ANSWER: Benvenuto **Cellini** <Rodriguez, Other Visual>

19. Answer the following about the various ways agricultural engineers aim to increase crop yield, for 10 points each:

[10] Three-component fertilizers typically include phosphorus, nitrogen and this element. The oxide of this element is also used in cement processes.

ANSWER: **potassium** [accept **K** or **K₂O**]

[10] Another way to increase yield is to genetically modify these objects which contain the genetic information of a plant. These embryonic objects are produced after fertilization and usually planted in the ground to grow crops.

ANSWER: **seeds**

[10] Not all genetically modified crops work out. A GM version of this crop known as Amflora was developed by BASF, approved by the EU, and then withdrawn from the market. Other GM versions of this crop by Simplot and Atlantic were approved by the US FDA.

ANSWER: **potato** [accept reasonable equivalents such as **potato starch**] <Bunker, Other Science>

20. A 2002 eruption of this country's Mount Nyiragongo in Virunga National Park produced a lava flow which covered the northern third of the runway at Goma International Airport. For 10 points each:

[10] Name this country, whose city of Goma and the adjacent Rwandan city of Gisenyi to the east are on the northern shore of Lake Kivu.

ANSWER: **DRC** [or **Democratic Republic of the Congo**; prompt on **Congo**; do not accept or prompt on "Republic of the Congo"]

[10] Mount Nyiragongo is located along the Albertine Rift, which further south encompasses this lake, with the most genetically diverse cichlid ["SIH-klid"] population in Africa. The MV *Liemba*, used by Germany to control this lake during World War I, provides a ferry service on this lake between Tanzania and Zambia.

ANSWER: Lake **Tanganyika**

[10] Virunga National Park and two adjacent national parks in Uganda and Rwanda contain one of only two populations of this endangered subspecies of ape. The eastern lowland variety is the other subspecies grouped with this ape.

ANSWER: **mountain gorilla** [accept **Gorilla beringei beringei**; prompt on **gorilla** or **Gorilla beringei**] <Higgins, Geography>

21. Sergei Diaghilev commissioned this composer to write the ballet *La nouvelle Cythère* about the discovery of Tahiti, but it was not performed due to Diaghilev's death, which caused the cancellation of the entire season. For 10 points each:

[10] Name this composer of *Pastorale* and *Enjoué* ["ahn-zhoo-ay"], the only female member of *Les Six* ["lay sees"].

ANSWER: Germaine **Tailleferre**

[10] Tailleferre composed the song "L'adieu du cavalier", which was written in memoriam of this composer. This other member of *Les Six* wrote the ballet *Les biches* and the opera *Dialogue of the Carmelites*.

ANSWER: Francis **Poulenc**

[10] Poulenc wrote the *Concert champêtre* ["kohn-sehr shahm-pet-ruh"] for his friend Wanda Landowska, a noted player who revived interest in this Baroque instrument. This Baroque keyboard instrument is similar to a piano, but the strings are plucked instead.

ANSWER: **harpsichord** <Fu, Classical Music>

22. Margaret Foley, a suffragette from this state nicknamed the "Grand Heckler," followed gubernatorial candidate Louis Frothingham in a car nicknamed the "Big Suffragette Machine," challenging his anti-suffrage views at every stop. For 10 points each:

[10] Name this state. Lucy Stone, a Suffragette from this state, founded the AWSA in it following a split in the suffragette movement; she was also the first woman in this state to earn a college degree.

ANSWER: Commonwealth of **Massachusetts**

[10] Foley was one of the relatively few suffragettes of this ethnicity, which became the largest in Boston by 1850 after a Potato Famine triggered mass immigration.

ANSWER: **Irish**-American

[10] Foley was a longtime member of the MWSA, an organization co-founded by a member of this family married to Lucy Stone. Another member of this family named Elizabeth was the first woman granted a medical degree in the US.

ANSWER: **Blackwell** [accept Henry Brown **Blackwell** or Elizabeth **Blackwell**] <Laurie, American History>